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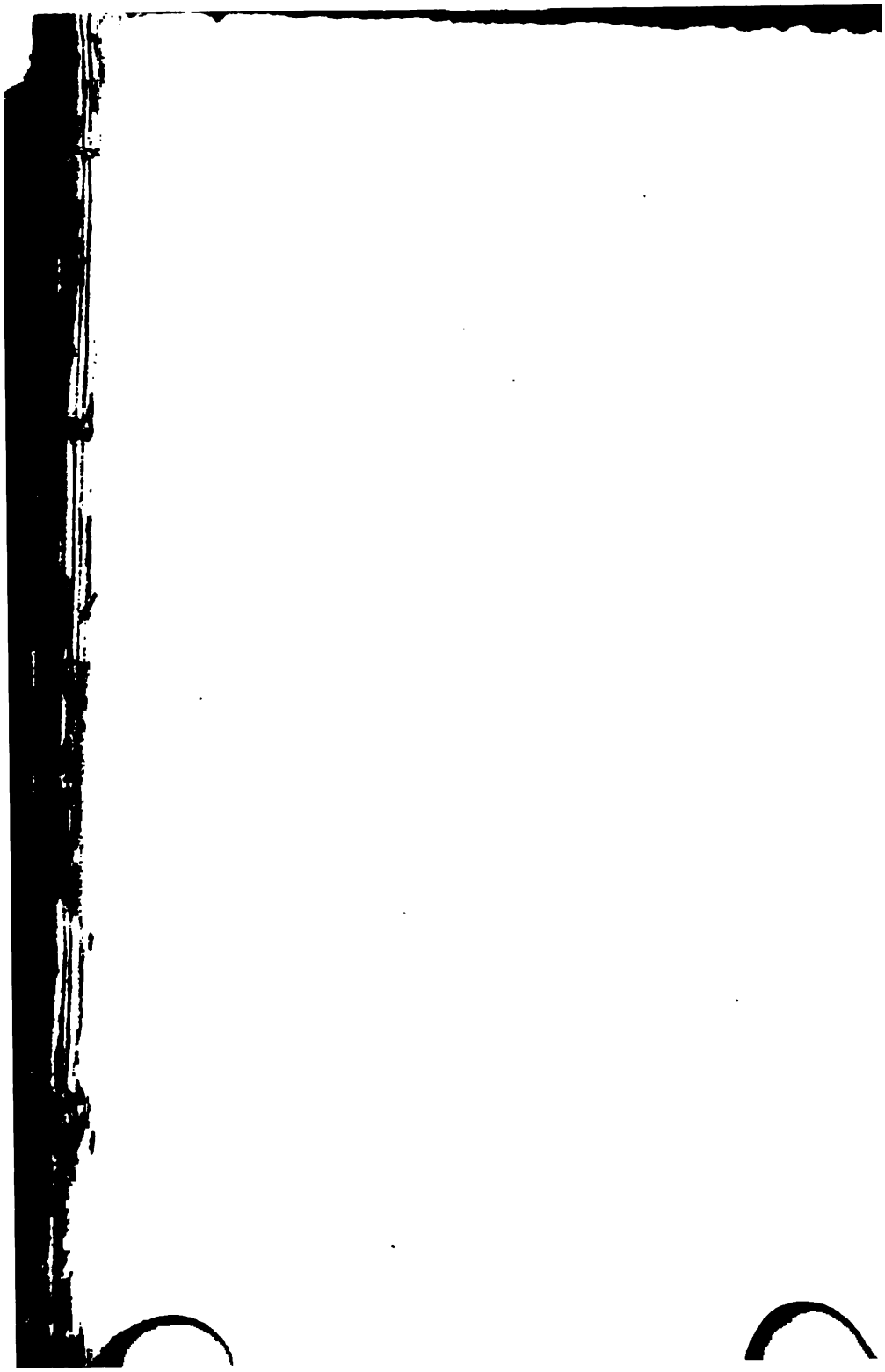

THE CHANGE OF LIFE

IN

HEALTH AND DISEASE.

BY THE SAME AUTHOR.

ON DISEASES OF WOMEN

And Ovarian Inflammation,

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THE CHANGE OF LIFE

IN

HEALTH AND DISEASE.

A PRACTICAL TREATISE

ON

THE NERVOUS AND OTHER AFFECTIONS

INCIDENTAL TO

Women at the Decline of Life.

BY

EDWARD JOHN TILT, M.D.

SENIOR PHYSICIAN TO THE FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY;
FELLOW OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY,
AND OF SEVERAL FOREIGN SOCIETIES.

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PREFACE.

SEVERAL years have elapsed since I published a little work on *Diseases of the Change of Life;* since then, I have been diligently engaged in collecting the materials for a fuller elucidation of the subject; and if, in the course of this second edition, I more frequently refer to personal observation than to the writings of medical authorities, it is simply because few have written upon the affections incidental to the change of life, although their frequency and importance are generally recognised.

The extinction of reproductive power gives an emphatic interest to that period of the lifetime of woman comprised within the 40th and 50th years, were it even unattended by many constitutional changes and morbid phenomena. My views on these points will be found sketched in an introductory chapter, and in the following, the results of some interesting inquiries into the physiology of this epoch; but I am anxious to draw the reader's attention to that portion of the work which relates to nervous diseases.

The present century has witnessed magnificent discoveries in the pathology of the brain and of the spinal marrow; but it will be obvious to those conversant with medical literature that the pathology of the ganglionic nervous system has received comparatively little attention, neither can it be much

advanced until experimental physiologists have accurately investigated many points connected with the physiology of the ganglia and their nerves. My object has been to prepare the ground for other labourers, by throwing on an intricate subject all the light I could collect. I have, moreover, attempted to trace the boundary-line between cerebral and ganglionic affections, now considered entirely dependent upon cerebro-spinal disturbance, largely illustrating the varied relations in which cerebral disorders stand to ganglionic affections. I have also sought to show that there are several distinct morbid conditions of the nervous system to which the term hysterical is indiscriminately applied.

The first edition has been long out of print, and an apology may be due for the delay in the appearance of the second; but the prosecution of my undertaking has been so repeatedly interrupted, that I have been obliged again and again to pass over the same ground—a mental process very tedious and irksome to an author, but well calculated to give maturity to his views.

E. J. T.

11, York Street, Portman Square,
January, 1857.

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CHAPTER I.

INTRODUCTION.

THE terms "Change of life," "Critical time," "Turn of life," in English, and "Temps critique," "Age de retour," in French, are generally understood to mean, a certain period of time, beginning with those irregularities which precede the last appearance of the menstrual flow, and ending with the recovery of health. Some German writers call this epoch "the period of sexual involution."

Variable as the duration of this time is in different women, it receives a certain degree of precision from the date of the last m. flow, which divides the c. of life into two periods. When in the course of this work I speak of *cessation*, I always mean the cessation of the m. flow, which has also been called *ménopause*. There is no medical term to designate the time included between the first indications of the failure of ovarian energy, and cessation, but women call it "the dodging time," which happily expresses the uncertain and erratic appearance of the m. flow, and I shall therefore adopt the phrase to indicate the first part of the c. of life in contradistinction to the last part, which begins at cessation, and concludes when health is permanently restored.

Although the importance of this epoch has been denied by Tissot, Dewees, Meissner, Saucerotte, and Landouzy, their opinion is not generally admitted by the profession, as is evident from many works of the last century, and from the more modern writings of Fothergill, Sir C. M.Clarke, Dr. Meigs, and Dr. G. Bedford. The last author has stated, that "in

addition to structural and malignant disorders so frequent at this period, there are many forms of eccentric nervous disturbance, various forms of temporary or permanent paralysis, and that the varieties of simple nervous irritation, without involving any peculiar lesion, are beyond calculation." German pathologists have admitted the importance of this epoch, which has, however, been chiefly recognised by the French. In addition to those whose names I shall soon have occasion to cite, Lisfranc completely adopted the popular belief in the dangers of the c. of life; and Moreau de la Sarthe says, that "the c. of life is characterised by headaches, syncope, leipothymia, general or partial spasmodic affections, hypochondriasis, the varied symptoms of hysteria, and by many forms of insanity." Brierre de Boismont, in his Prize Essay, and Dr. Dusourd, in his Practical Treatise, on Menstruation, have recognised the vast influence of the c. of life on the health of women, and I shall have frequent occasion to refer to their valuable works. I cannot equally commend the only two works expressly written on this subject, with which I am acquainted,—one by Gardanne, in 1816, entitled "Avis aux Femmes entrant dans l'Age critique," and the other, a treatise by Dr. Menville, published in 1840, and called "Du Temps critique chez les Femmes." These two works have little scientific merit, but their hazardous assertions have suggested inquiries which would not otherwise have been undertaken, and they have afforded me some valuable cases for the illustration of my subject.

Some, like Voisin, in his work on the causes of insanity, mis-state views in order more effectually to show their fallacy. They admit, with Voisin, the frequency and singularity of nervous affections at the c. of life, but deny that they can be caused by the retention of a few ounces of blood; whereas it is contended that the cessation of the m. flow and the attendant changes, whether physiological or morbid, are all induced by structural changes progressing in the ovaries,

and by their various reactions on the system. One objection claims special notice, because it is founded on an erroneous interpretation of statistics. Benoiston de Chateauneuf and Odier de Genève have proved that, if a large number of women, between the ages of 40 and 50, be compared with a similar number of men within the same periods of life, the rate of mortality will be greater among the males than the females. But those who bring forward these results, may as well say that parturition has no influence on the health of women, because it has little on their mortality; and, moreover, Finlayson has shown that, at all periods of life, more men die than women. Those who deny that the c. of life is a critical period, argue as if *critical* meant *fatal.* In medical language, crisis means a sudden change for the better or the worse, leading as often to recovery as to death. Instead of flowing on in smooth tranquillity from the cradle to the grave, the stream of life is marked by rapids, which have been called critical epochs, and during which an unusual predominance is acquired by one or by several of the organs which together form the human frame. The object of each successive critical re-adjustment of our frame, is, to ensure the greatest possible amount of health consistent with each particular period of life. This object is attained in the vast majority of cases, but the constitution only rallies after having been severely shaken for a certain period, varying according to constitution and temperament. In some, the critical changes of dentition and puberty are brought about without ill-health, but in many, these epochs are marked by a prolonged condition resembling convalescence, and often chequered by serious disease. At all critical epochs, the activity of the preponderance-seeking apparatus may be too powerful, and totally disturb the functions of the allied organs, as in hysteria, or it may be too feeble to re-act with sufficient energy on the system, as in chlorosis. Whether the energy of the preponderance-seeking power is above or below par, health is

impaired, for the system is deprived of the power of reacting justly against stimuli, whether physical or emotional. First and second dentition seem to influence both sexes in the same way. Puberty is common to both, but the impulse then given to the constitution of man is, in general, fully effective and all-sufficient to ensure its permanent activity until extreme old age; whereas, in woman, this crisis is very liable to be perverted or delayed, and even when puberty has been effectually established, the health of woman is dependent on regular oscillations of vital power. Matrimony, pregnancy, parturition, lactation, are all critical periods, curing some complaints, and giving greater activity to others; and when, after having lasted thirty-two years, the action of the reproductive organs is withdrawn from the system, prolonged ill-health is the frequent result. Then arise a series of beautiful critical movements, the object of which is to endow woman with a greater degree of strength than she had previously enjoyed; but if cancerous seeds of destruction have been slumbering for years in the system, the c. of life will, in general, prove fatal. Thus Dionis of old, and Madame Boivin, Dupuytren, Tanchou in our time, have proved, that the greatest proportion of cancerous affections and polypi of the womb are complained of at that period, and it is the same with cancer of the breast. If the term critical be taken in its medical sense as indicating a period in which the system finds relief by critical discharges, what time of life is so rife with critical phenomena! The floodings, leucorrhœa, diarrhœa, and perspirations, are eminently critical, and restore to health the vast majority of women. The frequency, however, of intense suffering at the c. of life is proved by carefully noting down what has occurred to women at this period. B. de Boismont found that out of 107 women, 80 suffered considerably; and out of 539, I have only met with 39 who have not suffered. The larger proportion of suffering I detected may depend upon my having included not only the floodings and

the polypi, but also, what I have called the ordinary critical symptoms of the c. of life, whose value has not been sufficiently insisted upon by previous observers.

This volume will forcibly show the evil effects of the c. of life; its sanative influence cannot be so easily depicted, as patients consult the profession for actual disease, not for that which has been cured. I have, however, learned from women in whom the m. flow had definitively ceased, that, in 24 cases, piles had disappeared; in 8 others, they had ceased to bleed. Twelve women who had been very liable to inflammation of the womb were cured by the c. of life, 26 others were no longer troubled by leucorrhœa, and I am convinced that many suffer for years from unrecognised uterine affections, which are at last completely cured by the c. of life. Prolapsus of the womb was cured in 3 cases; 15 women no longer suffered from uterine deviations, though they still existed. In 4 cases varicose veins had gone down; 53 women spoke of the great additional strength obtained, and of the abatement of their liability to dyspepsia. Cardialgic affections then often lose their gravity and become less frequent, and the same remark applies to almost all cerebro-spinal affections, even to the most formidable, for Esquirol has seen many women recover their reason at the cessation of menstruation. Reporting on the Female Lunatics at Colney Hatch, Dr. Davey says:—"There are many females between the ages of forty and fifty, whose recoveries may be expected when the uterus shall have fairly resumed its original inaction, and when also the brain shall have lost a fertile source of irritation and disease. Unfortunately it happens that the poorer classes are much too unmindful of the health of women at the critical periods of life, and pay too little attention to the means whereby the uterus may be assisted in its efforts to preserve its due influence on the human economy; and therefore is it, in a very great measure, that insanity is of so frequent an occurrence among women."

I have dwelt on this subject in another work,* contending that in many of the worst cases, there was a prospect of the mental faculties being restored at the c. of life; and taking up the suggestion, Dr. Hood has admirably pleaded the cause of many most unfortunate women confined for life in Bedlam for infanticide, or other great crimes, committed during a temporary attack of puerperal mania, rightly observing that,† though there may be danger in restoring them to society while menstruation renders impregnation possible, and therefore another attack also of puerperal mania, there can be none in releasing them some time after the c. of life. B. de Boismont told me that this question had been discussed at the Psychological Society of Paris; and Dr. Ferrus, Inspector-General of Prisons, with all who were well informed respecting criminal lunatics, entertaining the same opinion, the plan was successfully tried, for several women had been restored to society for 10 or 12 years, without a relapse having occurred.

The critical nature of a period is shown by its effects on the health in ensuing years, thus puberty is not only the crisis of most of the complaints of the preceding epochs, but it governs the health of the subsequent period for good or evil; in like manner, the c. of life not only terminates critically many complaints of the preceding years, but it has a decisive action on the state of health during the whole subsequent period of life, so much so, that from the manner in which this crisis is accomplished, I believe it possible to predict whether in after life the health will be good or bad. Fifty-three women, in whom there had been no m. flow for 5 years, and whose health had been habitually bad, spoke of their great additional strength of constitution, and this result may be taken as a rule which harmonises with the popular belief.

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* "Elements of Health and Principles of Female Hygiene," by E. J. Tilt, M.D. Bohn, York-street, Covent-garden, London.

† "Criminal Lunacy," by W. C. Hood, M.D. Churchill, New Burlington-street.

It is shown by the greater longevity of women, by their being less liable to sudden death, and by their general immunity from disease, for the little said about women in works on diseases of old age is a strong proof of the good health with which they are generally blest during the last stage of existence.

The few works written on the subject of this inquiry led me to believe that they would not afford me much assistance. In treatises on diseases of women, I have found very little to help me, because the critical time and its infirmities are generally dismissed with half a page. In none of our classical works have I found diseases of the c. of life brought within the range of the laws of general pathology, and no general principles of treatment are laid down for the guidance of others. Perhaps the deficiencies of medical literature are corrected in the daily routine of practice, though some eminent practitioners are of a different opinion. They do not pretend that nothing is done to relieve the sufferings of women, but not enough, that a placebo is given where systematic treatment is required. Thus, Sir C. M. Clarke, commenting on the diseases of this epoch, states that "It is not unusual with women to refer all their extraordinary sensations to 'the c. of life,' and to consider that, when they have thus accounted for their diseases, they have at the same time cured them ; and in this, most medical men, judging at least from their practice, seem to be of the same opinion."

Dr. Meigs likewise says, "In America, too little regard is paid to the dangers of the crisis ; and when the threatening consequences of mismanagement or misapprehension have become startling, those fatal mutations are attributed to some trivial cause, and the victim passes away to the sound of the passing bell, and no increase of knowledge, acquired by such a mournful experience, stands in the way of the next victim to a management as unwise and as thoughtless."

"The complaints," adds Dr. Meigs, "which women at the

c. of life often make, are frequently hushed with the unsatisfactory reply that such complaints are owing to the c. of life, and are likely to cease whenever the c. shall become complete. A physician has no moral right, by his opinion, to put to sleep the anxieties of his patient, and to save himself the trouble of thinking by so concise and unphilosophical a mode of proceeding. Whenever, therefore, a female, at this period, which is universally admitted to be a critical and dangerous time for her, comes to complain of symptoms referable to some morbid condition of the reproductive tissues, it is clearly our duty to give a considerate attention to her case, and not to dismiss her until our judgment should be fully satisfied as to the therapeutical or hygienical indications of the case."

The present volume illustrates the period comprised between the 40th and the 55th year, and in addition to other data, it embodies the tabulated estimates of the symptoms and diseases observed among 500 women, who were at the c. of life, or who had passed it. The facts I have collected, the pathological views to which I have been led, and the plans of treatment they have suggested to me, having borne the test of experience, I venture now to place them before the profession.

Physiology and pathology are twin-born, their growth and comparative state of advancement generally coincide. The little knowledge of diseases of the c. of life seems principally owing to the neglect in which physiologists have left many questions relating to this epoch, and though it may strike some that I have given unnecessary space to the physiology of the c. of life, I am convinced that a better understanding of this critical period is not to be attained without an unusually patient investigation of all that relates to its physiology.

CHAPTER II.

PHYSIOLOGY OF THE CHANGE OF LIFE.

THE reproductive organs of women induce a long series of critical changes, the last of which is termed the c. of life. To understand this crisis, it is necessary to study its phenomena in relation to puberty and to the whole function of menstruation, for if hitherto some of its physiological phenomena have been unnoticed or imperfectly understood, it is because physiologists have not sufficiently considered their relation to the other stages of the reproductive function. If pathologists are at a loss how to treat the continually recurring infirmities of the c. of life, it is because they have not compared them with the diseases frequently met with at puberty. To explain how the c. of life so completely modifies the constitution of woman, leading either to improved health or to diseased action, I am obliged rapidly to review the reproductive function, referring all who wish for further details to my Second Edition of "Diseases of Women."

About the age of 13, in the latitude of Great Britain, the constitution of girls is seen to change. Those who are delicate become more so; those who are in rude health suffer slightly. There is a frequent recurrence of pains in the back, in the lower limbs, and in the abdomen; there is a tendency to headache, nervous irritability, and fitfulness of temper. After this has lasted for 12 or 18 months, a small quantity of blood is perspired from the womb, and the nervous symptoms abate, but they generally return again for a few months, until the recurrence every 28 days of the m. flow, with a certain amount of nervous irritability, pain and headache, has become a con-

firmed habit. In the mean time the body attains to its full proportions; the pelvis acquires sufficient size to permit the passage of a child; the breasts swell to give it food; there is a general improvement in health, and woman soon attains to her highest point of physical perfection. Unless interrupted by pregnancy and lactation the m. flow recurs every month for about 32 years, then it becomes irregular as at puberty, and after being so for about 2 years it ceases altogether. As at puberty, so at the c. of life, women are habitually more irritable, more sensitive, more subject to headaches and to lowness of spirits. As at puberty, so at the c. of life, a renewal of strength generally follows. Such is the menstrual function under favourable circumstances, but there is a reverse to every medal. Instead of recognising puberty by increased health, how often do we infer it from the sickly look, the undeveloped form, the chlorotic cast of countenance. Instead of slight pains in the back, limbs, and hypogastric regions, the pains may be excruciating and long continued, leading to, what has been called, spinal irritation and hysterical contraction of the limbs. Headache may incapacitate the patient for all exertion; her mental faculties may seem lost in a state of drowsy forgetfulness; nervous irritability may grow to the proportion of hysteria under its worst forms; and instead of fitfulness of temper and waywardness of disposition, she may become morose and mischievous. In fact, the conduct of a girl at puberty sometimes betrays such a dereliction of all principle, that moral insanity is not too strong a term to characterise it. When the long-expected m. flow at last appears, it does not always bring health. Its return may be too long delayed, or should it come regularly, instead of being a bearable infirmity, it may be attended by so much abdominal pain and nervous symptoms as to constitute a disease; or, there may be something amiss in the reaction of the reproductive organs on the nervous system, so that the m. flow may return every 15 or 21 instead of 28 days.

The c. of life has also its reversed side. Instead of being a period marked by slight infirmities, it may be characterised by very complicated morbid phenomena. There may be great debility and chlorosis as at puberty; the abdominal pains may be very severe; headaches, frequent and agonizing; instead of a slight haziness of the mental faculties there may be continued drowsiness and stupor; if hysterical convulsions are less frequent than at puberty, the globus hystericus and the minor manifestations of hysteria are very frequent, and insanity oftener occurs. If unrelieved by repeated critical discharges, such as flooding, leucorrhœa, diarrhœa, or perspiration, these complicated nervous symptoms may continue for years, but are even then amenable to proper treatment, by which their occurrence might have been effectually prevented.

Puberty and the c. of life are caused by anatomical changes, the one by ovarian *evolution*, the other by ovarian *involution*. At puberty the ovaries increase in size, become more vascular, and let fall ovula. At the c. of life ovula are more and more scantily secreted. Little is known of the anatomical condition of the ovaries during the c. of life, and those who have the advantage of hospital practice would do well to ascertain whether they present any particular appearance in women dying at that epoch. After cessation the stroma becomes atrophied, and as it can no longer distend the thick ovarian envelope, it wrinkles up in various directions, thus resembling a peach-stone. Later in life it is more and more atrophied, and I have often found it not larger than a horse-bean, the place of the ovary being sometimes only indicated by a small fibro-cellular substance. This ovarian atrophy determines corresponding changes in the Fallopian tubes, which contract and are sometimes obliterated; it also causes the womb to become atrophied, particularly its neck, which is thinner and shorter; and Virchow has noted the closing of the internal os uteri in old age, the vagina often becoming narrower and shorter. The mammary glands are likewise atrophied

after cessation, whereas during the c. of life they are often congested, or otherwise diseased.

It will ever be a matter of surprise how so many phenomena of health and symptoms of disease can be determined by two little oval bodies, whose structure does not appear to be complicated, but as the fact is unquestionable, it is well worth attempting to explain the varied manner in which the ovaries influence the system in health and disease. With whatever power these organs may be endowed, they chiefly influence the various parts of the body through the medium of its nerves. The ovaries having both ganglionic and cerebro-spinal nerves, they can re-act on both the ganglionic nerves and their centre, and on the cerebro-spinal nerves and their central organs. Whether the ganglionic be considered an independent system of nerves or an offshoot of the cerebro-spinal nervous system, all agree that it follows every capillary to its minutest ramifications, and governs the nutrition of all and every part of our frame. It is known that each important organ of nutritive life is supplied with a ganglionic plexus of nerves and ganglia, that they all communicate together, and with a larger plexus and more voluminous ganglia, situated at the pit of the stomach, called the solar plexus and ganglia; but before these foci of nervous matter had been noticed, medical men had observed that the abdominal organs were endowed with a variable amount of nervous energy, and Galen called the epigastric region, the lever of the forces by which the animal economy is moved. Without entering into details, which will be found in my work on "Diseases of Women," I shall merely state, that while sensation and motion are intimately dependent on the cerebro-spinal system, nutrition is dependent on the ganglionic, and that in the central ganglia, situated in the epigastric region, there is a condensation of ganglionic nervous power which gives and receives from each organ a variable impetus. Many pathological facts, which I shall set in order, are not to be accounted for without taking

it for granted that the solar ganglia are an important centre of nervous power, capable of re-acting on the various parts of the body by some subtle invisible fluid analogous to electricity, which I shall speak of as ganglionic nervous fluid or aura. Reasoning, then, from the facts to which I have alluded, it seems that the human frame is so constructed, that its various component organs can re-act upon each other in the way most conducive to health, until the age of puberty. At that time health often fails, and the whole system languishes, unless the reproductive organs come into full activity. From puberty until the c. of life, the health of woman cannot be maintained without an appropriate amount of ovarian influence. If this nervous stimulus, which I shall call ovarian aura for want of a better name, re-act healthily, it augments the power of the epigastric nervous centre, causes the functions of nutrition to be performed with increased energy, and gives an instinctive consciousness of strength. If, on the contrary, this ovarian aura be insufficient in quantity or defective in quality, it will not act with sufficient force on the epigastric centre of ganglionic action, and uneasy sensations will be felt at the pit of the stomach,—feelings of sinking and faintness, fainting being often induced. Sometimes there is pain, or anomalous sensations; sometimes a state of defective nutrition which is called chlorosis, a disease doubtless most frequently met with at puberty, but also of frequent occurrence during pregnancy and lactation, and from which the c. of life is surely not exempt. If the ovarian stimulus be insufficient, it will retard the first appearance of menstruation, cause the flow to come irregularly, or for a time suspend its recurrence. If the ovarian stimulus be too strong or defective, it re-acts with morbid energy on the abdominal viscera, each endowed like the generative viscera with special ganglionic plexus and ganglia. It is not surprising that organs similarly endowed should fraternise, and that whether at each m. period, at puberty, or at the c. of life, undue ovarian influence should

give rise to more or less nausea and sickness, or to a perverted appetite; that it should cause the intestinal canal to secrete more gas or mucus than usual, thus determining diarrhœa; that it should force the lower part of the bowel to perspire blood; that it should increase the amount of water passed by the kidneys, that of sediments contained in the urine, or that of saline water perspired by the skin. If at each m. epoch, or at the beginning or cessation of the reproductive functions, the ovarian stimulus be too abundant or too energetic for the allied abdominal organs, then may arise painful or strange sensations in the ovarian regions, and a sense of precordial oppression, real pain, or hysterical phenomena, may be felt at the pharynx. At each m. crisis, during puberty or the c. of life, the spinal and hypogastric pains are caused by the passage of the ovarian influence through the splanchnic and the spinal nerves. Some amount of pain is perfectly consistent with the healthy performance of the m. crisis, with its inauguration at puberty, and with its demise at the c. of life, for when the ovarian influence is defective, as in chlorosis, there is often no pain; but its amount frequently becomes morbid owing to the too strong action of the ovarian aura on the spinal nerves. The too abundant or too powerful ovarian action, after determining pain in the ovarian regions, causes pain, oppression, or uneasy sensations in the epigastric region, and sometimes globus hystericus; but its area of action is not confined to ganglionic nerves, or to nerves intimately blended with them, for through the medium of spinal nerves the ovarian stimulus acts on the spinal cord, and so develops its energy, that, whether at the monthly ovarian crisis, at puberty, or at the c. of life, there arises frequently a tetanoid condition of the system, a state of nervous irritability, shown by an impossibility of repose, by a continued state of restlessness, by the fidgets, by what a French writer has called "impatiences organiques," or by hysterical convulsions. Or there may be numbness of some part of the skin, local

anæsthesia, local paralysis, called hysterical if affecting the joints of young women, paraplegia or hemiplegia. The strength of the ovarian nisus, or the relative weakness of the nervous system, may be inferred from the fact of death occurring in the midst of hysterical convulsions, without any lesion being detected in the cerebro-spinal system. The ovarian influence reaches the ganglionic centre, which is in constant communication with the brain by the pneumo-gastric nerves, so that at each m. epoch, at puberty, or at the c. of life, its undue influence is shown in some by distressing headaches, continued fretfulness, peevishness, and capriciousness, called temper, by a temporary perversion of moral feeling, or by moral insanity. In others, excessive ovarian action is shown by high spirits or excitement, by delirium, then called hysterical, and very frequently there is more or less of what I have termed pseudo-narcotism. The disturbance, the cloud is no longer on the moral instincts but on the mental faculties, which are for a time in a state of misty haziness, the brain feels muddled, memory is faithless, there is an unconquerable desire to sleep during the day, even when the night has been passed in repose. This state of the nervous system has in some cases amounted to coma and lethargy.

Having thus briefly sketched the varied phenomena which attend on the successive stages of the reproductive function, I am able to open the investigation of its terminal crisis.

To ascertain the date of cessation is a point of great importance, for it often marks the climax of much previous and subsequent suffering. In the following table I have placed, side by side, the results obtained in Paris by B. de Boismont, and in London by Dr. Guy and myself. It will be seen that although the date of cessation varies from the 21st to the 61st year, yet it may generally be expected from 40 to 50. Thus, out of B. de Boismont's 181 cases, in 114, cessation took place between 40 and 50 inclusively; and in 330 of my 501 cases, cessation occurred during the same decennial period.

TABLE I.

Dates of the CESSATION *of Menstruation.*

Age at Cessation.	Cases collected by B. de Boismont.	Cases collected by Dr. Guy.	Cases collected by Dr. Tilt.	Total cases.
21st year	2	...	...	2
24 ,,	1	...	...	1
26 ,,	1	...	...	1
27 ,,	1	1	1	3
28 ,,	1	1	...	2
29 ,,	1	...	...	1
30 ,,	...	1	10	11
31 ,,	3	...	1	4
32 ,,	2	...	4	6
33 ,,	...	2	1	3
34 ,,	4	1	2	7
35 ,,	6	3	6	15
36 ,,	7	1	2	10
37 ,,	4	5	7	16
38 ,,	7	5	6	18
39 ,,	1	7	10	18
40 ,,	18	33	42	93
41 ,,	10	24	17	51
42 ,,	7	24	26	57
43 ,,	4	23	24	51
44 ,,	13	24	23	60
45 ,,	13	45	49	107
46 ,,	9	34	31	74
47 ,,	13	25	42	80
48 ,,	8	38	37	83
49 ,,	7	25	32	64
50 ,,	12	37	49	98
51 ,,	4	14	27	45
52 ,,	8	13	16	37
53 ,,	2	8	9	19
54 ,,	5	2	7	14
55 ,,	2	1	6	9
56 ,,	2	2	4	8
57 ,,	2	1	2	5
58 ,,	...	...	4	4
59 ,,	...	...	1	1
60 ,,	1	...	1	2
61 ,,	...	...	2	2
Total	181	400	501	1082
Average date of last Menstruation.				
Years	44·0	45·8	46·1	45·7

It will be seen that the average date of cessation is higher in proportion to the amount of cases, and that the average of the 1082 cases is 45 years 9 months. The 46th year of female life is then that in which cessation may be expected, and that after which fecundity is improbable in temperate climates. This is a question of great interest in a medico-legal point of view, and particularly so when expectancies depend upon the possibility of a woman being fruitful.

Such is the law, but there are frequent exceptions, cessation taking place in some women long after or before the usual time. The possible limits of the m. function may be gathered from well-authenticated cases of late menstruation and late fecundity, and from tables of fecundity and mortality. That the possibility of fecundity can, in general, be estimated by the persistence of menstruation is confirmed by many trustworthy observers, living or dead. Thus, Mr. Roberton, of Manchester, observes:—"I am able to speak confidently concerning 3 women who had children at advanced ages,—one in her 50th year, another in her 51st, and the third in her 53rd year. In each of these instances the menstrua continued up to the period of conception." My colleague, Mr. Davies, at the Farringdon Dispensary, has confined a lady of her 13th child at the age of 53, after which there was no m. flow; and Dr. Davies, of Hertford, communicated to the *Medical Gazette*, Vol. XXXIX., the case of a woman who was 55 when her last child was born, and who menstruated up to conception. Twice have I known the m. flow to continue its regular appearance up to the 61st year, in ladies of a remarkably strong constitution: and Mr. Roberton cites a case where menstruation ceased for 12 months about the 50th year, when it again became regular and continued so until the 70th.

Lamotte relates the case of a woman who had 32 children, and menstruated quite regularly up to her 62nd year. Auber attended two women, one 68 and the other 80, who for the last few years had again menstruated. The flow came re-

gularly, lasted 3 or 4 days, and during that time they were more nervous than usual, the organs of sensation being unusually dull in apprehending their appropriate stimuli. Saxonia states that a nun, in whom the m. flow ceased at the usual time, experienced its return when her 100th year was attained, and it continued regular until her death, 3 years after. Rush mentions the case of a woman who was confined for the last time in her 60th year, menstruated until her 80th, and died in her 100th year.

The medical advisers to insurance offices should know that menstruation may cease at the age of 45, and then reappear, continuing regularly for a few months or for years with the chance of fecundity. A case of this kind has occurred in my own practice. The lady ceased at 45, menstruation was absent for two years, then returned with regularity, and was followed by pregnancy at 50. Cornelia was confined of Valerius Saturnius in her 62nd year. Cederschjald met with an instance of a woman bearing a child at 53, and menstruation still continued. Haller records two cases in which women at 63 and 70 respectively bore children. My old friend Capuron cites the case of a lady, who after the m. flow had been absent for several years, saw it return at 65. Three months after she miscarried, the fœtus being well formed.

Meissner states that a woman who first menstruated at 20, bore her first child at 47, and the last of 7 other children at 60. Menstruation ceased and reappeared at 75, continuing until 98, then stopped for 5 years, again to return at the advanced age of 104. In 1812 she was still alive.

I might increase the number of such cases, which are not instances of irregular flooding, but of the m. flow, occurring regularly with its attendant symptoms, and often followed by pregnancy. These facts contradict the opinion of those who assert that when the m. flow has once fairly ceased between 40 and 50, any blood that may afterwards flow from the womb must depend upon some undetected ulceration.

In most of the cases of late menstruation that have come under my notice, I have carefully sought for ulceration of, and in, the neck of the womb, without being able to detect it.

Civilization has attained to such an artificial state, that the date of marriage no longer indicates the possibility of procreation. Table IV., extracted from the 14th Annual Report of the Registrar-General, shows the large number of women who marry after the demise of the reproductive power. The Irish census gives similar results:—

TABLE II.

Marriage Table for Ireland, 11 *Years ending* 1841.

	MALES.				FEMALES.			
Age.	No. of Weddings.	To 10,000 population.	To a maximum 100.		No. of Weddings.	To 10,000 population	To a maximum 100.	
Under 17	1,516	80·81	·92	Maxim. age, 31·84	14,941	831·11	13·3	Maxim. age, 26·34
17—25	191,677	3021·23	34·4		305,312	4977·90	79·26	
26—35	193,639	8335·63	94·8		98,195	4981·20	79·32	
36—45	33,830	4115·57	46·7		8,279	701·61	11·1	
46—55	5,836	1128·82	12·7		1,131	101·61	1·5	
Above 55	1,579	167·76	1·6		219	10·63	·16	

The following table, extracted from the Registrar General's Report, shows that many more women than is supposed bear children late in life:—

TABLE III.

Fecundity of Women at various Ages.

Ages of Mothers when their Children were born . . .	Under 20	20—25	25—30	30—35	35—40	40—45	45—50	Above 50	Total.
Children born from 1831 to 1835 . . .	8301	70,924	121,781	126,808	98,950	49,660	7022	167	483,613

Thus, out of 483,613 women who became mothers from under 20 to above 50, no less than 7022 bore children from their 45th to their 50th year, and 167 were mothers after having passed their 50th year; that is to say, that 7189

TABLE IV.

Number of Bachelors, Spinsters, Widowers, and Widows at different Ages who were enumerated; also the Numbers and Proportions who were Married in the Year 1851.

AGES.	Numbers enumerated in 1851.				Estimated numbers married in 1851 (see *note*).				Proportion married to 100 living.			
	Bachelors.	Spinsters.	Widowers.	Widows.	Bachelors.	Spinsters.	Widowers.	Widows.	Bachelors.	Spinsters.	Widowers.	Widows.
Total.	2,297,759	2,306,009	333,926	661,894	132,643	140,331	21,563	13,875	5·773	6·085	6·457	2·096
15—	869,325	861,453	76	260	4,035	18,807	—	13	·464	2·183		5·000
20—	633,842	598,732	2,168	4,326	71,049	75,872	667	850	11·209	12·672	30·766	19·649
25—	308,363	306,607	8,290	14,303	37,647	29,136	2,967	2,132	12·209	9·503	35·790	14·906
30—	159,956	163,604	14,249	26,328	12,558	9,857	4,079	3,057	7·851	6·025	28·627	11·611
35—	95,889	99,443	18,584	34,839	4,371	3,759	3,775	2,527	4·558	3·780	20·313	7·253
40—	67,380	71,520	24,576	49,207	1,885	1,789	3,459	2,132	2·798	2·501	14·075	4·333
45—	47,522	51,044	27,172	54,868	688	724	2,407	1,466	1·448	1·418	8·858	2·672
50—	37,155	43,102	34,057	70,033	262	258	1,945	909	·705	·599	5·711	1·298
55—	25,815	30,823	32,586	67,181	90	96	1,043	491	·349	·311	3·201	·731
60—	21,649	29,559	41,725	88,283	33	25	728	213	·152	·085	1·745	·241
65—	13,055	19,319	37,567	77,698	19	5	324	53	·146	·026	·862	·068
70—	9,629	15,217	39,284	74,625	3	—	124	19	·031	-	·316	·025
75—	5,068	8,837	28,139	52,527	3	—	28	8	·059	—	·100	·015
80 & up.	3,111	6,758	25,453	47,416	—	3	17	5	—	·044	·067	·011

Note.—Of the total number of marriages solemnized in 1851, the ages of the males and females were stated only of the following numbers,—viz., 48,555 bachelors, 51,141 spinsters, 7792 widowers, and 5206 widows. In this Table, these numbers have been proportionally raised to the total numbers married under these respective headings.

women out of 483,613, or 1 in about 67, bore children after the time when the m. flow usually ceases.

The Irish fecundity table to which Dr. Routh refers in a very interesting paper on procreative power—*London Journal of Medicine*, 1850—is equally conclusive:—

TABLE V.

Table of the Number of Marriages, and the Issue from such Marriages, occurring in the Eleven Years ending 1841, *for Women of the Ages under* 17, 46-55, *and above* 55.

Age of Husband.	Age of Wife.	No. of Marriages.	Prop. of Children to 100 marriages.	Age of Wife.	No. of Marriages.	Prop. of Children to 100 marriages.	Age of Wife.	No. of Marriages.	Prop. to 100 Marriages.
Under 17	Under 17.	661	256	46 to 55.	1	0	Above 55.	1	0
17—25		9,847	262		35	51		3	0
26—35		4,066	252		145	51		12	0
36—45		313	248		227	39		15	20
46—55		36	205		428	22		52	10
Above 55		18	128		295	10		136	12
Total...		14,947	257		1,131	26		219	12

Thus it appears that in 10 years, out of 427,977 women married in Ireland at different ages, there were no less than 1131 married between their 46th and 55th year, and 219 were married after their 55th year. Those who wish for further evidence of the fact under discussion may consult the Registrar-General's 17th Report, now in the press.

The following table shows similar results in a northern latitude:—

TABLE VI.

Fecundity Table for Sweden and Finland.

Age.	Annual Average Number of Deliveries.	Proportion to 100 Females living.
15 to 20	3,298	2·48
20 — 25	16,507	12·56
25 — 30	26,329	21·64
30 — 35	25,618	22·82
35 — 40	18,093	18·32
40 — 45	8,518	9·54
45 — 50	1,694	2·28
50 — 55	39	·05

In the paper referred to, Dr. Routh has published corresponding results derived from two London institutions. At the St. Pancras General Dispensary, out of 1527 women confined, the age of 12 varied from 46 to 57. Two of the 12 were 55 and one 57. At the Westminster General Dispensary, out of 2509 women confined, the age of 6 varied from 56 to 49. Dr. Taylor—*Medical Jurisprudence*, p. 568—has given the following table, drawn up by Neverman :—

TABLE VII.

Of 10,000 pregnant women, 436 or $43\frac{3}{5}$ per 1000 were upwards of 40 years of age. Of these 436 women,

101 or	$10\frac{1}{10}$	per 1000	were in their	41st year.
113 or	$11\frac{3}{10}$	„	„	42nd „
70 or	7	„	„	43rd „
58 or	$5\frac{4}{5}$	„	„	44th „
43 or	$4\frac{3}{10}$	„	„	45th „
12 or	$1\frac{1}{5}$	„	„	46th „
13 or	$1\frac{3}{10}$	„	„	47th „
8 or	$\frac{4}{5}$	„	„	48th „
6 or	$\frac{3}{5}$	„	„	49th „
9 or	$\frac{9}{10}$	„	„	50th „
1 or	$\frac{1}{10}$	„	„	52nd „
1 or	$\frac{1}{10}$	„	„	53rd „
1 or	$\frac{1}{10}$	„	„	54th „

Here it will be observed how suddenly the number of pregnancies diminishes after the age of 45.

I inquired whether women who had borne children late in life had married late, but could obtain no answer at the Registrar-General's office. Judging, however, from many of the cases just recorded, fecundity was as remarkable as the protraction of the m. flow ; and if so many women bore children after 45, it was not because they had married late, but because their ovaria had been endowed with unusual vitality.

This view is supported by the experience of Mr. Roberton, who states "that in 11 women, 3 had a child each in the 49th year, and the other 8 had each a child above that age; I ascertained that the aggregate number of their children was 114—*i. e.*, 10 and a fraction for each woman, a fact indicating that they must have married rather early in life. Concerning the age of marriage in 2 out of the 11, I possess some little information; the one married at 18, had 2 children before she was 21, and brought forth her 14th child in her 50th year; the other was married from a boarding-school at a very early age. In her 53rd year she was delivered of her 12th child."

Protracted menstruation is proved by the following statement:—

TABLE VIII.

Ages of Women dying from Childbirth in the Year 1852 *in England and Wales.*

Ages.	Deaths from Metria.	Deaths from Childbirth.
15 and under 20	50	80
20 „ 25	210	340
25 „ 30	231	461
30 „ 35	217	486
35 „ 40	173	544
40 „ 45	78	313
45 „ 50	13	51
All Ages	972	2275

I have insisted on the frequency of pregnancy late in life, because grievous mistakes have often followed the practitioner's persuasion of its impossibility. To my knowledge, pregnancy late in life has been mistaken in three cases for an ovarian tumour, and was treated by iodine, mercurials, and tight-bandaging, which caused the death of the child, and greatly compromised the mother's health. Whether there be truth in the popular belief, that parturition is more dangerous

to the mother when it occurs late in life, I have not been able to ascertain.

What are the causes of protracted menstruation? Many of the preceding cases enable me to affirm that the ovaries may become paralysed before the time usually fixed for their atrophy, and that they may resume their wonted energy by a spontaneous effort, by the shock of sudden grief, or through some impulse given to the ganglionic system, by fevers and visceral diseases. At the same time it is obvious, that a sanguineous discharge from the womb must not be accounted menstrual, unless it be repeated regularly; for in advanced age fever may cause uterine hæmorrhage, as it may an epistaxis. For instance, Gardanne gives a case, wherein an abundant m. flow is said to have come, for the last time, after 6 months' stoppage, to a woman 49 years of age, during a bilious fever, in which emeto-cathartics were given. This might have been uterine hæmorrhage: so might it have been in Bohnius' case, where the ingress of fever is stated to have brought on a return of menstruation in a woman 80 years old. The same remark applies to a statement lately made by Mr. Wood, of the return of the m. flow in a lady aged 69, in consequence of the death of a favourite son; and at 60, to her sister, in consequence of a fright. These cases are open to doubt, unless the critical discharge returns regularly for a certain time, as in the following instance published by Mr. A. Brown—*London Medical Gazette*, Vol. XXI.—A woman had not menstruated since her 42nd year, when, after suffering 7 months from swelling of the liver and pains in the loins, she was critically relieved in her 56th year, by the sudden appearance of menstruation, which was repeated 10 times, and perfectly re-established her health. Protracted menstruation is, however, more frequently caused by affections of the womb than of any other organ. Fibrous tumours of the womb often retard the date of cessation. Uterine polypi have the same effect, and in some of Dupuytren's

cases of uterine polypi the m. flow lasted until the 49th or 56th year; but the sanguineous discharge should not be considered menstrual unless it occurs periodically, or with periodical paroxysms. I have sometimes found that ulceration of the neck of the womb coincides with an unusually protracted m. flow, and as the earlier observers had not the means of recognising this disease, their cases of late cessation are, to a certain extent, invalidated.

With Dr. Dusourd, I consider the ovarian activity to be commensurate with constitutional vigour, inasmuch as all those in whom the m. flow was unusually prolonged, were remarkable for their strength and good health. Neither should the philosopher lose sight of the connexion between the unusual prolongation of ovarian life and longevity remarkable in several of the preceding cases, and I believe that life is longest in those women in whom puberty is retarded, as it is proved to be the longest in cold countries where the average date of first menstruation is delayed. Alexander von Humboldt has arrived at the same opinion, founding it upon extensive and comparative study of the numerous races which inhabit South America.

When the ovarian nisus is healthily manifested, it indicates a corresponding healthy activity of the other functions of vegetative life; and when it is unusually prolonged, it implies a corresponding power of endurance of vegetative life, on which depends longevity.

Another means of judging whether cessation will be retarded is the circumstance of its having first appeared later than usual, notwithstanding the contrary assertions of Burdach and Mende. Now, in some of the cases of very prolonged m. flow, it first appeared as late as 20 and 22; but to ascertain the truth, I compared 33 women, who had first menstruated from 8 to 11, with 37 women, in whom menstruation had been retarded from the 18th to the 22nd year. The results are shown in the following table:—

TABLE IX.

Date of last Menstruation in the EARLY *Menstruated and the* LATE *Menstruated.*

Years of Age at Cessation.	Cases of early Menstruation at from 8 to 11.	Cases of late Menstruation at from 18 to 22.
30	2	1
31	1	
34	1	
35	1	
37		1
38	1	
39	2	1
40	2	3
41	1	1
42	2	1
44	2	2
45	3	3
46	1	7
47	2	2
48	1	3
49	3	3
50	4	4
51	1	2
52	1	
55	1	1
58	1	2
Total	33	37
Average Date of Cessation.		
Years.	44·6	46·8

Two years and three months is a remarkable difference between the two averages. The average of the late menstruated is a year later than that derived from the 1082.

If I were consulted respecting the chance of issue from a lady aged 45, I should ask when menstruation first appeared, and if it were 18 or 19, I should infer the prolongation of the m. flow beyond the average time, which would of course increase the chance of loss to be sustained by an insurance office. With regard to the structural conditions, whereby, in a certain number of women, the m. flow and fecundity

are protracted to such an advanced age, it is fair to suppose that they were anatomically constituted like a lady in whom menstruation only became regular at the last years of her life, and who died at 72, and in whom Drs. Bouvier and B. de Boismont found the ovaries and the whole of the generative system turgid, as in girls of 15 to 18 years of age; instead of being atrophied as is the case in women advanced in life.

I now come to the causes of early cessation, or premature ovarian paralysis. As human life is often cut short long before the time specified by the Psalmist, so the reproductive force with which the ovaries are endowed may be extinguished long before the average date of 45. On careful consideration of 49 cases, wherein menstruation ceased suddenly from the 27th and 39th year inclusively, I was unable to detect anything peculiar to their constitution with the exception of 8, whose strength was below the average. None of the 49 had married too early or were addicted to prostitution, which have been erroneously given as causes of early cessation by Meissner. They were not unusually subject to profuse menstruation, as asserted by Gardanne.

They were not more than usually affected with disease of the reproductive organs, as stated by Meissner, neither did the diminished extent of the menstrual function indicate less reproductive power, for the average amount of children was a little more than 3 in 26 out of the 49 women who were married.

If women of the same family sometimes cease to menstruate at the same age, it may be merely a coincidence. With regard to the influence of race, climate, country or town life, and civilization, upon the cessation of menstruation, there are the contradictory assertions of those who speculate upon too small a number of facts.

Out of my 49 cases, the m. flow was suppressed from the 27th to the 39th year in 27, and I found sufficient cause

to explain the fact, as will be seen from the following table:—

TABLE X.

Causes of early Cessation in 27 Women.

Nature of Cause.	No. of Women.
Parturition and lactation	3
Miscarriage	1
A fall on the sacrum during m. flow	2
Suppression of m. flow from frost or intense cold	2
Bleeding from the arm at a m. period	1
Getting wet through during a m. period	1
Violent purging, the result of medicine	2
Cholera	2
Rheumatic fever	2
Bronchitis, with fever	2
Fright	9
Total	27

Some of these cases deserve a few words of comment. Lucy A., aged 53, had never menstruated since a miscarriage at 32, and her health has been better ever since.

W. N., now 50, a tall, stout-looking woman, had a child at 34, continued to flood for 8 weeks. She suckled her child for a year, but has never menstruated since.

Elizabeth A., a woman of average strength, aged 47, had a child 10 years ago, suckled it 18 months, and menstruation did not return. In such cases ovarian energy seems exhausted by parturition and lactation, and nature seizes the opportunity to put a sudden end to the m. function.

Julia L., a chlorotic-looking woman, aged 45, had no m. flow since she was 33, when during menstruation she missed a few steps and fell on her back. In such cases the ovaries may be so paralysed by the effects of a mechanical shock that they never recover its effects.

Emily F., a healthy looking person, aged 48, last menstruated at 39, when the m. flow was suddenly stopped by severe frost. She was often troubled with leucorrhœa during the 2 years which followed, but did not otherwise suffer. In such cases cold has the same paralysing influence as a fall, and it is easy to understand that similar effects may be produced by cholera or violent purging. Dusourd relates three cases where the m. flow ceased after the supervention of diarrhœa, coming about every month and lasting for a few days; and he has known the m. flow to cease in three women from 40 to 43, after an abundant hæmorrhoidal flow. Fever has so powerful an effect on the viscera principally endowed with nervous energy by the ganglionic system, that one can understand why it should be a frequent cause of ovarian paralysis.

As at puberty the m. flow is sometimes suddenly brought on by emotion, so fright and the sudden communication of bad news are the most frequent causes of sudden early cessation. The ovaries and womb are stunned by a nervous shock like the frog's muscles by a violent electric shock, which incapacitates them for future action.

Ann G., aged 59; the m. flow ceased at 39, being suddenly suppressed by grief for the death of her husband. The same occurred at 34 to Maria B., now aged 50.

Elizabeth C., a dark-eyed, thin, sharp, and wiry old woman of 71, consulted me for an apoplectic attack. She had enjoyed excellent health until her 30th year, and had been nursing a child 16 months, when her husband suddenly dropped down dead at her feet. Stunned by the blow, she let the child slip from her arms, lost her senses for a few hours, and her milk "turned to water." For a time she felt a good deal shaken, but was always able to attend to her household duties; and her health soon became as strong as usual and continued so until lately, although the m. flow had not appeared since her 28th year, and although the system had not been

relieved by leucorrhœa, diarrhœa, piles, or by systematic treatment.

Eliza S., aged 52, had been regular from 18 to 39, when she was bled at a m. period for rheumatic pains in the shoulders. Immediately after being bled she vomited for an hour, had intense perspirations, but never menstruated again.

Ovarian tumours often cause early cessation of the m. flow. Thus, out of 15 cases of ovarian tumours operated on by Dr. W. Atlee, of Philadelphia, of which he sent me the particulars, some referred to young women, but in most the amount of the m. flow was diminished, and cessation occurred in four cases at 30, 39, 40, and 42. In 14 cases of fibrous tumours, also operated on by Dr. Atlee, the m. flow had been profuse, often attended by hæmorrhages, and continued so up to the time he saw the patients. I have likewise known the m. flow to cease at 32 in women who had always very scantily menstruated.

Thus, in many cases, cessation occurs long before or long after the average period of 45, and although it has not been precisely attempted, I think it desirable to establish clearly the diagnosis of cessation, so as to prevent mistakes and ensure the proper treatment of patients.

Every well-marked condition of the constitution has its peculiar physiognomy, and even at the beginning of the c. of life there is generally something in the appearance which leads me to suspect what is taking place. The physiognomy at such periods indicates debility and suffering, which cannot be accounted for by disease; or there may be the drowsy look of a half-intoxicated person, or the dull, stupid astonishment of one seeking to rouse herself so as to answer a question. In several of my worst cerebral cases there was the same permanent knitting of brows expressive of constant anxiety. The unusual development of hair on the chin and upper lip generally coincides with cessation; so does a sallow complexion; there is also an unusual power of generating

caloric, indicated by the habit of throwing off clothing and opening doors and windows. In other respects the appearance of women at the c. of life varies with the constitution, and the manner in which it is affected by the change.

Women at the c. of life present 3 types—1st. The Plethoric. 2nd. The Chlorotic. 3rd. The Nervous.

1st. The Plethoric type is unmistakeable, with its turgid tissues, its over-florid countenance in a state of perspiration, its anxious expression, or half-intoxicated appearance. The pulse is often full and bounding, though I have been surprised to find a weak thready pulse in florid athletic women.

2nd. While in some the c. of life increases the proportion of globules in the blood, it diminishes them in others, and thus chlorosis is produced. The Chlorotic type is recognisable by the sallow or semi-chlorotic skin, the weak pulse, the arterial murmurs, and various symptoms of debility. Even on the blanched face, faint flushes will bring out perspiration.

3rd. All women are unusually nervous at the c. of life, but some present a well-marked nervous physiognomy without plethora or chlorosis. The over-anxious look, the brimful eye, the terror-struck expression fearing to see some frightful objects, and the face bedewed with perspiration, are not uncommonly met with.

When the m. flow has been for many months absent or irregular, too scanty, or too abundant, in women answering to the above description, I look upon cessation as probable, whatever may be the age, unless the absence of the m. flow can be satisfactorily explained by chlorosis, lactation, or pregnancy. In the absence of all other signs, the c. of life is to be suspected when, for the first time, towards the 45th year, the m. flow comes at intervals of a week or a fortnight.

Cessation may be confounded with I. Chlorosis. II. Inflammation of the neck of the womb. III. Uterine polypi. IV. Uterine fibrous tumours. V. Uterine hydatids. VI. Uterine cancer. VII. Pregnancy. I shall briefly illustrate

these assertions by recording the mistakes which have occurred to myself or others.

I. Chlorosis may be mistaken for cessation:—

CASE 1.—*Cessation supposed to be chlorosis.*—Anne W., aged 33, married, and living with her husband, consulted me at the Paddington Dispensary, July, 1852. She was of middling stature, had light brown hair, blue eyes, and an anæmic hue of countenance. She had lately been treated for chlorosis by steel and bitters.

The m. flow first came at 13; had been regular and without pain until 22, when she married, and had one child at 24. There had been a gradual diminution of the m. flow for the previous year, with intense debility, epigastric faintness, and drenching perspirations.

Here was certainly a case of chlorosis; for in addition to other symptoms there was a loud *bruit de souffle* in the carotids. But was it a case of chlorosis in a married woman, or chlorosis occurring at cessation? I inferred the latter from the *gradual* failing of the m. flow, and the pertinacity of the flushes and perspirations, my tables proving that the m. flow may cease at so early a period.

The c. camph. mixture, a belladonna plaister to the pit of the stomach, and sulphate of iron in pills, much relieved the patient. Six months afterwards she had much improved in appearance, but had not menstruated. I saw her again three years afterwards: her health was good, but there had been neither pregnancy, nor a return of the m. flow.

In this case an error in diagnosis might not lead to injudicious treatment, for the same tonic treatment would be required under all circumstances.

II. Cessation may be mistaken for ulceration of the neck of the womb, as in the following case:—

CASE 2.— *Ulceration of the neck of the womb mistaken*

for cessation.—Mrs. J., a delicate-looking lady, with light hair, and grey eyes, was 47 when she consulted me in 1849. The m. flow came at 17, without much disturbance. She married at 25, and had 3 children, the last 7 years ago, when her health failed, and the m. flow became irregular as to time and quantity, being sometimes very scanty, and at others so abundant as to confine her to the bed or sofa for 10 days. There were frequent bearing-down pains, often followed by leucorrhœa. For the last year there had been no m. flow, but always a little leucorrhœa, which every month became so abundant as to oblige her to take additional precautions. She became nervous, irritable, and was sometimes troubled with flushes and perspirations. She thought the c. of life had occurred, and medical advisers confirmed her opinion, in which I also concurred; but struck with the unusual persistence of leucorrhœa, ever since her last confinement, I advised a further examination, and found the neck of the womb three times its usual size, though little pain was given by pressure. The os uteri was patulous, rough, and when seen through the speculum, the surface appeared extensively ulcerated. This was first treated by the application of the solid nitrate of silver every 4th day, and then by iodine exhibited internally and applied to the surface of the womb, which in 6 months was restored to a healthy condition, and I lost sight of the patient.

I again saw this lady in 1855, and learnt that a few weeks after I had ceased my attendance, she was taken poorly in the usual way, and that the m. flow had appeared monthly ever since.

The m. flow had been prematurely stopped by the debilitated state of the frame and by the chronic uterine inflammation. That once cured, and the system having gained strength, the ovarian impulse became strong enough to induce the healthy uterine discharge.

Phœbe B., a Dispensary patient. The m. flow gradually

stopped at 31, after suckling, and as it remained absent for a year, cessation was supposed to have taken place. On examination, however, I found ulceration of the neck of the womb; that being cured by surgical treatment, the m. flow went on as usual. In such cases, the error of diagnosis would be prevented by a more careful examination of the patient.

III. CASE 3.—*Uterine polypus mistaken for cessation.*—Mrs. P., a thin lady of moderate stature, with dark hair, hazel eyes, and a blanched countenance, consulted me when 42 years of age. The m. flow came at 17, and was regular until 22, when she married. She had one child, and menstruation continued regularly for several years; she then became subject to a red discharge, sometimes slight, at others very abundant. She was very weak, had palpitations on the slightest exertion, but no headaches, hysteria, flushes, or perspirations. Her medical man called the case one of premature c. of life, but had he made an examination, he would have found a polypus the size of a hen's egg hanging from the cavity of the womb, by a pedicle about as thick as the little finger. I removed the polypus, and the m. flow returned, and continued regular for 5 years afterwards.

I have seen several similar cases.

IV. CASE 4.—*Fibrous tumour of the womb during the change of life supposed to be pregnancy.*—Mary B., aged 47, unmarried, a tall, stout woman, of a sanguine temperament, dark hair, and a florid face, became a patient of the Paddington Dispensary, Jan. 23, 1850. Menstruation first appeared at 15, and was regular, but very abundant up to the 40th year. For the last 7 years the flow was always irregular, and had often amounted to a flooding, with intense bearing-down pains. For the last 6 years she had been subject to frequent flushes and sweats, and to much pseudo-

narcotism. Now her eyes look heavy and bewildered, her head feels giddy and stupid, she is afraid of falling; there are considerable abdominal enlargement, vesical tenesmus, and morning sickness. On examination, I found the womb much enlarged, more so on one side than on the other; and I gave for diagnosis, "Fibrous tumour of the womb with symptoms of cessation." Under the influence of my usual treatment the patient was relieved.

June 16th she again applied for advice, and told me that, as the pains had returned, with suppression of menstruation for the last 4 months, and as the abdomen had increased in size, she consulted one of my colleagues at the Dispensary, who, after examination, pronounced her pregnant. Distressed at an opinion which implied what she knew to be impossible, she again submitted to an examination, which only confirmed me in my former opinion. The result proved that I was right, for, soon after, menstruation returned, and continued to do so at irregular intervals for the following year.

In this case, the advanced age of the patient, the prolonged irregularity of the menstrual flow, the persistences of pseudo-narcotism, of the flushes and perspirations, made it probable that these symptoms were produced by the c. of life.

The sanguineous discharge or fibrous tumours and polypi, and the flooding they determine, are often confounded with the m. discharge and with the flooding of cessation, but not rightly so unless the discharge or the flooding be periodical. In a case of extreme fibrous tumour, which I shall hereafter relate, flooding lasted for 8 years without intermission; but there is no ascertaining whether this was caused by the c. of life.

V. The following case puzzled me exceedingly, and was for a time supposed to be connected with the c. of life:—

CASE 5.—*Uterine hydatids supposed to be the change of life.*—Anne H., a tall, delicate-looking woman, with light hair and blue eyes, was 39 when she first consulted me at

the Paddington Dispensary, June 17th, 1850. The m. flow appeared at 15, with great abdominal pains, which often accompanied the healthy flow. She married at 20, had 6 children, and was regular up to the last year, since which time the flow came at 2, 3, 5, or 8 weeks' interval, with greater pains, and with nervous fits, in which, though conscious, she would remain from 6 to 8 hours in a perfectly powerless and speechless state. On examination, I found nothing the matter with the womb, so I imagined the c. of life was approaching, and treated her accordingly, but without affording great relief. The m. flow stopped for 3 months, up to which period nothing had caused me to alter my diagnosis; but in December flooding came on, and I have seldom witnessed greater sufferings than she endured for a year, flooding frequently occurring, with intense abdominal pains and hysterical fits. The womb was patulous but not ulcerated, and its body was not much enlarged. I gave opium and ergot of rye in repeated doses for a long time with decided benefit, for on May 10th, 1851, the m. flow appeared at the proper time, and without much pain. The abdomen was much swollen. After walking home, on June 23rd, dreadful forcing pains brought away from the vagina about a pint of sticky, rose-coloured water, without smell. This was followed by a sanguineous discharge, lasting for several days. A digital examination was very painful, but I ascertained that the body of the womb was anteverted, much enlarged, and so high that it was difficult to reach the os uteri. I gave opium enemata, which relieved the pains; alum injections were used, but when they stopped the flow, the pains returned, which were only relieved by flooding. To obtain parish relief, it became necessary that the patient should be attended by the parish doctor, so she passed under the care of Mr. Howlett; but I learned that, after very violent abdominal pains, half a pint of glutinous liquid was again passed from the vagina on July 5th, after which she continued to lose blood. It some-

times dribbled, at others came as a flooding. When the uterine discharge stopped for 2 or 3 days, the pains became excruciating, notwithstanding the exhibition of sedatives inwardly and outwardly; and this state of things continued until I was sent for to see the patient on December 6th, when, after labour pains, she brought away a large mass of hydatids, which well explained the frequent floodings and the patient's protracted sufferings. Ergot of rye induced bearing-down pains, and brought away dark, offensively-smelling blood. Opium relieved the sufferings. The patient recovered, and had another child a year after.

Uterine hydatids is a rare disease, generally occurring earlier in life, and its diagnosis is often very obscure. The enlarged womb, the continued flooding without ulceration of its neck, alternating with the limpid or rose-coloured glutinous discharge—the best sign of uterine hydatids—was absent in the early part of this case. The diagnosis of uterine hydatids, being clearly established, if the case had not passed into other hands, I should have introduced the uterine sound. This would have determined the expulsion of the hydatids, and saved the patient 6 months' suffering.

VI. The floodings of cancer are not unfrequently considered indications of the c. of life, particularly when they occur in young women presenting a healthy appearance—an error which can only be prevented by an examination.

VII. Pregnancy occurring late in life is often taken for cessation, the more so as, at whatever age, it is not unfrequently accompanied by the flushes, perspirations, and many of the nervous symptoms which characterize cessation. Under these circumstances it is better to give a guarded opinion. Thus De la Motte relates, that a lady, for fear of having children, would not marry before 51; and when she became pregnant, all the symptoms were considered to depend

on the c. of life. It much more frequently occurs, however, that the first symptoms of the c. of life are mistaken for pregnancy. This is sometimes the effect of imagination; for, as De la Motte remarks, many women have such a dislike to age, that they would rather persuade themselves they are with child, than suppose they are feeling the consequences of growing old; and they indulge this persuasion, until, like Harvey's widow, all hope vanishes in wind. Sometimes, however, the patient's belief in pregnancy is founded on data which puzzle the faculty. The m. flow stops, the abdomen gradually enlarges, and women, who have had children, are convinced they feel the moving of the child, the breasts swell and distil a milky fluid, there is sickness and impulsive desires; if a flooding takes place, the symptoms abate, but may again recur. B. de Boismont relates three cases of this description, and Fodéré two. The following are instances that have occurred in my own practice :—

CASE 6.—*Cessation mistaken for pregnancy.*—Mary C., married, aged 45, a tall, delicate-looking woman, with blue eyes and dark hair, thinks herself pregnant, and has been told so by several practitioners, consulted me at the Farringdon Dispensary, September, 1850. The m. flow came at 11, and was attended by little disturbance both before and after marriage. She married at 27, to a husband of the same age, and in rude health, but she never conceived. For a year the m. flow has been either abundant, with large clots, or very pale, and for the last 6 months it has been altogether absent, the abdomen gradually enlarging, the breasts becoming swollen and sore, with leucorrhœa and hysterical sensations in the throat. On examination, I found the abdomen enlarged, but without the centrally situated, uniformly round tumour of a pregnant womb. The womb was small, with a virgin orifice. That the patient was not pregnant I felt convinced, and I inferred the c. of life from the long continuance of m. irregularities, the continued epigastric faintness, the flushes and

sweats. My usual treatment relieved the patient; for many months she had an abundant mucous discharge every month from the vagina, which was not interfered with. When I last saw the patient she was 50, and there had been no return of the m. flow.

CASE 7.—*Cessation supposed to be pregnancy.*—Sarah B., a tall, thin woman, of a sanguine temperament, says she is 35, but looks 40, applied at the Farringdon Dispensary for a lying-in-letter, on May 7, 1851. The flow first appeared at 14, was unattended by pain. She married at 18, has had five children, but has never been well since her last confinement two years ago. Hypogastric pains were habitual, the m. flow irregular, for the last six times it had the appearance of dirty water, and ceased entirely 7 months back, when the abdomen enlarged, and she now feels a fluttering similar to what she felt when pregnant. The breasts are swollen and discharge moisture, and the nipples are surrounded by a dark circle interspersed with a few pseudo-follicles.

Notwithstanding these signs of pregnancy, and the patient's assertions, I did not think her pregnant, for there was no solid umbilical tumour, no softening of the neck of the womb; and the irregularities of the m. flow, and the appearance it last assumed, coupled with a great liability to flushes and perspirations for the last three months, were my reasons for thinking the c. of life had occurred. That my opinion was correct, I ascertained upon inquiry several years after.

I have notes of three similar cases.

In the preceding cases, I believe that connexion taking place during the c. of life, induced a nervous condition of the womb, capable of determining most of the symptoms of pregnancy; and should the abdominal swelling, the nausea, the swelled breasts persist for months, the supposition of a fœtus as the cause of these symptoms might be easily admitted, and the rightful heir to an estate be defrauded without the possibility of detection, if the woman had already borne

children, unless an investigation were made soon after the supposed event. Cooch has noticed another class of cases simulating pregnancy occurring at the c. of life. The uterus is torpid, the intestines are flatulent, and the omentum and abdominal parietes have grown very fat, women having then, what Baillie called, "a double chin in the belly." The most notorious blunder of this description was in the case of Joanna Southcott, who, although 64, was thought pregnant by many medical men. The walls of her abdomen were coated with four inches of fat, and the omentum was one lump of fat, and four times the usual size.

There are other cases of spurious pregnancy caused by a morbid condition of the lining membrane of the body of the womb. It appears that a few days after the sanguineous flow has ceased, a *magma* is passed with the mucous flow. When examined, it is more or less extensive, elastic, of a bluish tint, found to be albuminous by chemical tests, and the microscope shows that it is formed by the cylindrical epithelial cells which line the uterine cavity. Such, at least, is the result of Pouchet's elaborate investigation, proving that this catamenial exudation is an abortive attempt to place the uterus in a position to receive and attach the ovum to its cavity.

Such is the *normal* condition, but at other times the virgin womb produces at each m. period a smooth, velvety, false membrane, completely like the decidua, except that it contains no fœtus. This false membrane, as Coste remarks, would be called a product of inflammation, if met with on any other mucous surface; and Dusourd has met with several cases of uterine exfoliation at the c. of life, the membrane being passed without flooding, but with great pain. In other women, unmarried as well as married, there is no such membrane, but the solid constituents of the blood unite, and come away as an ovoid "mole" in the midst of parturient pains. In such cases the womb really swells, and is able to cause

all the sympathetic disturbances of pregnancy, as in the following case :—

CASE 8.—*Cessation and spurious pregnancy mistaken for pregnancy.*—Five years ago, I was consulted by a lady under the following distressing circumstances. The patient moved in good society, was 45, unmarried, stout, and of a florid complexion. The m. flow came at 14, had been regular and with little disturbance until the previous 2 years, when it became irregular both as to the time of its appearance and its amount, sometimes being very scanty, at others abundant and containing large well-formed clots coming away with intense abdominal pains. There had been no m. flow for 6 months previous to my being consulted, and at that time the abdomen had gradually attained a size sufficient to attract attention. Her appetite was capricious and she was distressed by morning sickness, which led to ill-natured comments from some malicious friends who spread about the report that the lady was in the family-way, which report soon reached the ears of a gentleman to whom she had long been engaged.

On making a careful examination, I found the womb enlarged to about treble the size of the unimpregnated uterus, but still it was not so large as it would have been had the patient been 6 months pregnant. The neck of the womb was shorter than usual, but not as it generally feels in the 6th month of pregnancy. The breasts were swollen, the nipples surrounded by a darker circle than habitual; but there were no follicles. Taking these circumstances into consideration, and bearing in mind that ever since the m. flow had been irregular, the patient had been constantly troubled by flushes and perspirations, I gave as my opinion that the lady was suffering from the symptoms of the c. of life aggravated by some chronic enlargement of the womb. A course of purgatives, mild tonics, and sedatives somewhat relieved the

sickness and nervous symptoms, but the size of the patient seemed rather to increase than diminish. Two months after I was first consulted, or eight months after the m. flow had first stopped, I was sent for in the middle of the night, and found the patient in pains resembling labour pains, and after these had lasted several hours, a substance was passed about the size of a small Seville orange. Its external surface was rough, in part coated with well-organised fibrine, and on being cut open it was found to contain limpid serum. The walls of this hematic cyst varied in thickness from 2 to 5 lines. Its internal surface was small, and had no lining membrane; and microscopical inspection confirmed the belief in the fibrinous nature of the cyst. The passing of this singular body was followed for several weeks by a sero-sanguinolent discharge, by considerable abdominal pains, and by intense mental distress. On making an examination six weeks after the foreign body was passed, I was able to ascertain that the womb had returned to its normal size; the mind was longer recovering tranquillity, for the engagement was broken off, valued friendships had cooled down to stiff formalities, notwithstanding my emphatic declaration that the blood cyst passed by the patient could not be the result of conception. When I last saw the lady she was 49, and there had been no return of the m. flow.

If small clots of blood not unfrequently receive a partial organization in the womb, it enables one to understand how, in this case, the serum of a large clot separated from the fibrine, which constituted the walls of the cyst.

I believe this kind of spurious pregnancy is most likely to occur in women who for the first time experience the matrimonial stimulus at the beginning of the c. of life. I have met with several cases of this description. One was a lady who married at 47, after the first indication of the c. of life. Another was a lady of 45, who after being a widow for 12 years, married again when the m. flow had become very

irregular. Soon after marriage all the usual symptoms of pregnancy showed themselves, the womb seemed 4 or 5 times its usual size, and after remaining so for 5 months, a mass of half-organized fibrine was passed, and the patient recovered, but the m. flow continued irregular. Dusourd mentions the case of a woman at the c. of life who thought herself pregnant, when on stooping she felt herself wetted by a serous fluid coming from the womb, on which the abdomen subsided and the swelling of the breasts also. It stands to reason that a uterine or ovarian tumour at the c. of life may be an additional reason for supposing pregnancy.

The signs of pregnancy are, of course, obscure during the first few months, but then, judgment can be deferred. If, at a later period, mistakes are made, it is because all the circumstances of the case are not taken into consideration, or because one is not permitted to ascertain their existence. Thus, in the case of the notorious Southcott, the medical men who believed her pregnant were not allowed a vaginal examination ; but even without that opportunity, Mr. Sims, the Locock of his day, was convinced that the impostor was not pregnant from the state of her breasts and the absence of any umbilical prominence. In cases simulating pregnancy, the neck of the womb does not feel softened and puffy, the vagina is not livid. The patient states that the abdominal swelling began at the navel, and did not rise from the pubis ; the movements felt in the abdomen are accompanied by ill-defined depressions, instead of well-marked elevations. Pressure, cold, and the agitation of the body, do not reproduce the movements as they do when a child is in the womb. The navel is depressed instead of being salient, and there are ill-circumscribed hardnesses instead of a regular ovoid central mass ; there may be gurgling sounds in the intestines, instead of the placental murmur and the fœtal tic-tac, and the follicular development of the breasts is imperfect. The diagnosis of cessation being thus established, I proceed with my inquiry.

Having ascertained the average date of last menstruation, I have a fixed point whereby to calculate the amount of time before and after which the health of women was peculiarly affected. The length of the dodging time is extremely variable, and, like the prodromata of first menstruation varies from a few months to 6 or 7 years. Out of my 500 tabulated cases, there was no dodging time in the 137 women in whom cessation was sudden; 275 thought the dodging time had lasted during the periods indicated in the following table.

TABLE XI.

LENGTH *of Dodging Time.*

TIME.	CASES.	TIME.	CASES.
Months.		Years.	
1	2	2	52
2	3	3	25
3	9	4	9
4	4	5	4
5	5	6	6
6	32	7	5
7	4	8	3
8	11	9	1
9	3	12	1
10	9	14	1
11		18	1
12	60		
18	15		108
			157
	157	Total	265

Average Length of Dodging Time.	
Years	2·2

The average duration of the dodging time would be two years and three months; but this would give an incorrect idea of its length, for, on cross-questioning patients, I have generally found that for a few months before the m. flow became irregular, other changes had taken place, either the quantity had gradually diminished, or was sometimes scanty, at others

profuse. Frequently the quality of the discharge had altered, and had been, for months, observed to be more serous, of a paler colour, or like brown or green water. I therefore consider that ovarian influence begins to fail in most women from 2 to 3 years before 45, or about the 42nd year.

There are, likewise, no positive means of measuring the length of time which elapses between the cessation of menstruation and the re-establishment of health, because the resettlement of the constitution is brought about insensibly, and varies extremely in different individuals; but from the study of 383 cases, I conclude that, in general, when 3 or 4 years have elapsed since cessation, women are no longer liable to the floodings, the sweats, or to the distressing nervous symptoms, whether cerebral or ganglionic. When the cessation of menstruation is to bring into activity the seeds of complaints which have been long dormant in the system, it generally does so in the four years which follow cessation, so that the c. of life taking place from 42 to 49, the seventh septenniad of woman's life is an extremely critical period of her existence.

Having ascertained the average date of cessation, and taken into account exceptions to the rule, I give the following table, showing the duration of the m. function:—

Table XII.

Duration *of the Menstrual Function.*

Number of Years.	Number of Cases. B. de Boismont.	Number of Cases. Dr. Tilt.	Number of Years.	Number of Cases. B. de Boismont.	Number of Cases. Dr. Tilt.
5	1		30	13	36
6	1		31	13	33
8	1		32	9	38
11	1	1	33	9	35
13		1	34	7	49
15		3	35	4	33
16	4	1	36	10	26
17	4	2	37	6	16
18	1	4	38	5	15
19	3	1	39	2	15
20	3	3	40	7	6
21	4	6	41	1	4
22	3	11	42	3	7
23	12	11	43	1	5
24	8	10	44	1	3
25	8	22	45		1
26	11	11	46		1
27	7	25	47		3
28	6	29	48	1	
29	7	33			
	85	174		92	326
				85	174
			Total	177	500
Average Duration of Menstrual Function			Yrs.	28·93	31·83

These cases were collected under similar circumstances in Paris and in London; and I account for B. de Boismont having obtained so short an average duration of the m. function, from his having operated on too small a number of cases. It is generally stated that the average duration of the m. function is 30 years, I believe it to be 32, which is therefore the average duration of female fecundity, that of each successive generation, three facts which are interdependent.

The annexed table confirms the unproved assertions of B. de Boismont in France, Drs. Guy in London, Frank at Milan, and Dusourd in the south of France, that the duration of m. life is longest in those who have menstruated earliest, although cessation is often delayed in those who menstruate very late in life, as it has been demonstrated at page 26.

TABLE XIII.

Influence of EARLY AND LATE *Menstruation on the* DURATION OF THE MENSTRUAL FUNCTION.

Years elapsing between 1st and last Menstruation.	Cases of 1st Menstruation at from 10 to 12 Years of Age.	Cases of 1st Menstruation at from 17 to 19 Years of Age.	Years elapsing between 1st and last Menstruation.	Cases of 1st Menstruation at from 10 to 12 Years of Age.	Cases of 1st Menstruation at from 17 to 19 Years of Age.
12		1	31	5	14
13		1	32	5	5
15		1	33	6	6
17		1	34	5	3
18	1		35	5	1
19		1	36	5	
20	2		37	3	
21	3		38	4	1
22	1	3	39	4	2
23	1	9	40	3	
24	1	2	41	1	
25		4	42	3	1
26		1	43	2	
27	1	9	44	1	
28	6	10	45	3	
29	3	4	47	1	
30	1	8			
	20	55		56	33
				20	55
			Total	76	88
Average Duration of Menstrual Function			Yrs.	34·29	28·78

Thus while the general average duration of the m. function is 32 years, its average duration increased to 34 years and 3 months in the early menstruated; decreased to 20 years and 7 months in the late menstruated, and between duration of the reproductive life of those who menstruate at an early or

late period of youth, there is the striking difference of five years and six months.

It will be obvious that these calculations only hold good for England, France, Germany, and such parts of Europe as are comprised in their latitudes, for there are no positive data by which we can calculate the period of menstruation, and of possible fecundity in hot and cold climates. The first appearance of the m. flow occurs in India about 3 years before it does in England, and travellers say that it ceases in India and in hot climates between the 30th and 35th year. This would imply that the period of fecundity was less by several years in hot than in temperate climates. Dr. Ravn, of Copenhagen, has enabled me to demonstrate that first menstruation occurred in Sweden about 2 years later than in England. A reference to the fecundity table of Sweden and Finland, given at p. 21, does not show that procreative power is prolonged in so northern a latitude beyond the limits which bound it in England and Ireland ; I therefore infer that the period of procreative power is also shorter in northern latitudes than in England. In other words, the procreative power of man lasts longer in temperate than in hot or cold climates. Would the climate of India so modify the constitution of English women as to curtail the period of their fecundity? There are no means of answering the question, but guided by the fact of the m. flow having been known to appear late in young women transplanted from England to India, I infer that its cessation would occur there, at the time of life it ordinarily ceases in England.

Is fecundity possible during the c. of life? After the 45th year the chance of fecundity suddenly diminishes, becoming less and less every year, but it is possible so long as the m. flow appears, however irregularly. I know of two instances in which conception occurred during the c. of life. One was a single lady, 47 years of age, in whom the m. flow had been very irregular for the previous 2 years, with that general

failure of health which so often indicates cessation. The belief that impregnation was impossible at this period led her to permit liberties which were followed by pregnancy and the birth of a child. This case is the more remarkable as connexion only occurred once, 17 days after a flooding which lasted for 10 days, a fact irreconcilable with the ovulation theory.

Is fecundity possible after cessation? This question admits of being answered in the affirmative, because ovulation is not tantamount to menstruation. The ovaries may induce most of the symptoms of menstruation, and they may shed ovules without the womb discharging blood. Women sometimes conceive during lactation without the return of the m. flow; and as, in some very rare cases, conception has taken place before first menstruation, so I believe it possible in very rare cases after cessation. Mr. Pearson, of Staleybridge, has published the case of a woman who, at the age of 47, was delivered of her 10th child, 18 months after the cessation of the m. flow. In answer to my inquiry, Mr. P. kindly informed me that between her two last confinements 3 years and 4 months had elapsed, and that after suckling the child she had been regular several months previous to the cessation of the m. flow, for which no cause could be detected. This woman suckled her last child and has not menstruated since: 46 is not a very unusual date of protracted procreative power, but the fact of conception taking place 9 months after cessation is very singular. As an instance of the eccentricities which characterise the generative function, I may mention that I know a lady who was married at 18; both herself and her husband enjoyed habitual good health, but conception never took place until the lady was 48, when she bore a child. It would have been the opinion of every medical man that all chance of family had passed, as in another case reported by Schmidt, where a well-formed female, married at 19, did not bear a child until she had reached her 50th year. Having

ascertained the date of cessation, I shall proceed to enumerate the various modes in which the m. flow may cease.

Table XIV.

Terminations of the m. Flow in 637 *Women.*

Modes of Termination.	No. of Women.
By the gradual diminution of the m. flow	171
By the sudden stoppage of the usual m. flow	94
By the sudden stoppage and a terminal flooding . .	43
By a terminal flooding	82
By a succession of floodings	56
By alternate, copious, or scanty m. flow	36
At irregular intervals, longer than 21 days, the normal length of the intermenstrual period	99
At irregular intervals, shorter than 21 days	33
At irregular intervals, alternately longer and shorter than 21 days	23
Total	637

When the m. flow appeared at irregularly prolonged intervals, it was said to have occurred about every 2nd, 3rd, 4th, 5th, or 6th month, and sometimes at longer intervals, the longest being 16 months. When it appeared at irregularly contracted periods, it was said to have occurred at about 1 or 2 weeks' interval.

The duration of the flow at each m. epoch was less and less in the 171 women in whom there was a gradual diminution of the m. flow. When the mode of termination was erratic, the duration of each m. period was also irregular. Flooding continued either for a longer or a shorter time than that usually allotted to the m. flow; but I have generally observed that, during the first part of the dodging time, the m. period was often prolonged to 8, 10, or 15 days. As this may, however, be caused by a morbid condition of the neck of the womb,

an examination is necessary. During the latter part of the dodging-time the m. flow became less and less till it lasted only a day, or was a "mere show." With regard to its quality during this period, it was said to be sometimes blacker than usual, more clotty or sero-sanguinolent, or to be like cinder-dust and water, or dirty green water, like the latter part of the lochial discharge.

Some physiologists maintain, not only that menstruation is always the effect of ovarian action, but that each m. flow is caused by the ovary shedding an ovule, and, under pain of great inconsistency, they must explain in the same way all its varied terminations. In their opinion, the emerging of an ovule from the ovary causes the floodings of cessation or sero-sanguinolent discharges, no matter whether they occur every week or every six months. I am not obliged to adopt so irrational an explanation, because, while granting the possibility of a coincidence of ovulation and menstruation, I have never admitted that the m. flow is the result of ovulation. The more I observe the more I am struck by facts which cannot harmonize with the ovulation theory. I have patients in whom any unusual nervous emotion or over-exertion will bring on the m. flow with the usual m. symptoms, although they may have only just recovered from this discharge. How can it be supposed that an ovule can be ripened, and the dense ovarian envelope suddenly perforated by the fatigue of a dinner party, by hearing disagreeable news, or by an altercation with a servant? The laws of ovulation are as yet imperfectly known, but I believe that it proceeds as regularly, fatally, and uninterruptedly as nutrition; whereas the m. function shifts its periodicities, returning about the 14th or the 21st day after the last epoch, whether it came at a right or a wrong time. This sudden shifting of periodic action is the special attribute of the nervous system, shows the m. flow to be impelled by nervous influence, and explains how a strong emotion may repel the m. flow or alter the time

of its appearance. That sudden emotion should cause the uterine surface to perspire is only a repetition of the well-known effects of emotion on other parts.

The sudden diminution of fecundity after the 45th year implies that ovulation has become less frequent, and that there is a greatly-diminished chance of its coinciding with the m. flow; but I have known conception take place after flooding, and also after a m. flow, described as "a mere show."

The evident utility of the c. of life is to remodel the female frame, so that health may be made consistent with the absence of an habitual drain. An unusual intensity of that force which presides over nutrition is shown by its being able in many women to use up the retained blood, so as to strengthen the inner tissues of the frame, in the same way that it alters their outward appearance. In others, the nutritive force turns the superabundant blood into fat, and stores it up for future emergencies. I have seen the sudden growth of fat coincide with great improvement in health. This was most marked in Matilda W. It coincided with the great improvement caused by treatment, which, in other words, so modified the nutritive force as to enable it to convert blood into fat. Dr. G. Bedford also remarked "that those who became fat-bellied were not troubled with nervous symptoms." When the nutritive force is not able to turn the blood into fat, the balance of circulation is disturbed and leads to erratic fluctuations, misdirections of blood, and to congestions or discharges from various organs. This occurs generally during the first part of the c. of life, when women rather decrease in size than otherwise, but they grow fat in the latter part. Thus out of 383 women in whom there had been no m. flow for 5 years, 121 had grown stouter than before, 71 had retained the same size, and 90 had become thinner; in other words, only one-fourth of the 383 had become thinner than usual 5 years after cessation. Wishing to know whether continued illness during the c. of life had any effect on the greater or less tendency to become

stout, I divided the 383 women into three classes, according as they had suffered much, little, or not at all, and I found that the proportions of the stout and thin were about the same, and that if those who suffered considerably during the dodging-time had then become thinner, nutrition became unusually active in the latter part of the c. of life. Three out of the 383 became suddenly fat at cessation, but this *embonpoint* was no indication of strength. Although the mammary glands become atrophied at the c. of life, they often seem to retain their former size from the deposit of fat in their vicinity, and may become pendulous. Fat in the omentum has sometimes led to an erroneous diagnosis of pregnancy. Fothergill has observed that women are more likely to grow stout in whom menstruation has suddenly ceased before the usual time, unless it be caused by some internal complaint. I have known this to occur several times, as in the following instance, which may help the diagnosis of early cessation:—

CASE 9.—*Sudden embonpoint a sign of cessation.*—Eliza L., aged 32, stout, and with dull grey eyes, consulted me at the Farringdon Dispensary in 1856. The m. flow appeared at 9, and came regularly with a moderate amount of headache and pseudo-narcotism. She married at 27, but never conceived, and was regular until the m. flow suddenly ceased at 30, after a fit in which she was unconscious for five hours. When a child at school she used to faint away, and was with difficulty brought to her senses. She frequently fainted before marriage, but since then no fainting fits had occurred until two years ago, when, after unusual exertion, she remained unconscious for 5 hours. A year ago she had another fainting fit, and for the last two years she has been much troubled with giddiness, headache, and pseudo-narcotism. She now complains of not being able to see, "as if from a skin before the eyes." She is habitually troubled with epigastric pain, or uneasy sensations at the pit of the stomach, and she has grown immensely stout. It would be wrong to

include this case amongst those of early cessation, until it has been proved by time, though I believe it to be so, because the m. flow never re-appeared after the intense nervous shock, because for two years she has had all the ordinary symptoms of cessation, and because she has considerably increased in size. Fat accumulates in women after the c. of life, as it accumulates in animals from whom the ovaries have been removed. The withdrawal of the sexual stimulus from the ganglionic nervous system, enables it to turn into fat and self-aggrandisement that blood which might otherwise have perpetuated the race. As, during the dodging-time, the redundant blood cannot, in general, be used or changed into fat, it is expelled, and constitutes various hæmorrhages, or else it produces congestions or discharges, the latter relieving the former. As for thirty-two years it had been habitual for woman to lose about 3 oz. of blood every month, so it would have been indeed singular, if there did not exist some well-continued compensating discharges acting as wastegates to protect the system, until health could be permanently re-established by striking new balances in the allotment of blood to the various parts. The compensating agencies may be thus classed :—

I. A larger consumption of carbon by the lungs.

II. An unusual amount of urinary deposits.

III. Increased perspiration.

IV. Abundant mucous flows.

V. Hæmorrhages from various organs.

Some of these compensating actions proceed permanently, as from the surface of the lungs and skin; others occur irregularly; but in a certain number of cases the compensating action recurs periodically, assuming the monthly type, the type of the function which is falling into abeyance.

TABLE XV.

Monthly Occurrences after Cessation, in 53 out of 500 Women.

Nature of the Occurrence.	No. of Women.
Lumbo-abdominal pains	15
Leucorrhœa	12
Headache and pseudo-narcotism	7
Diarrhœa	5
Entorrhagia	2
Bleeding piles	1
Hysterical symptoms	2
Hysterical oppression, or asthma	2
Great depression of strength	1
Sweats	2
Dyspepsia	1
Stomatitis	1
Swelled gums	1
Swelled legs for 3 days	1
Total	53

I. RELIEF AFFORDED BY RESPIRATION.—The balance between the respiratory and the m. function is forcibly shown by the fact that, at whatever period of life, whenever menstruation is diminished or suppressed, more carbon is consumed per hour by the lungs, and less when the menstrual flow has been re-established. This removal of carbon from the system by the m. flow has been shown by the interesting experiments of Andral and Gavarret, who found that, in both sexes, from 8 years of age to puberty, there was an augmentation in the quantity of carbonic-acid gas excreted by the lungs; but, as soon as ever menstruation takes place, women continue to excrete the same quantity of carbonic acid as before; while, in man, the quantity goes on increasing.

From experiments made on 20 women, it appears that during the whole of the time comprised between the first and last menstruation, the strongest and healthiest only excreted per hour a quantity of carbonic acid representing gr. 6·4, or the same quantity as before puberty, while men excreted gr. 7·4 per hour before their 15th year, and gr. 11·3 per hour from 15 to 40 years of age.

After cessation of the flow, the lungs more largely excrete carbonic acid; for in women aged from 38 to 49, and who had ceased to menstruate, the quantity of carbon consumed per hour arose from gr. 6·4 to gr. 8·4.

II. RELIEF OBTAINED BY THE INCREASED DEPOSITS IN THE URINE.—The majority of women notice that, during the dodging-time, the urine, instead of being transparent, is unusually loaded with sediments, and this persists for weeks, and often recurs during that period. These sediments consist of lithates and phosphates, and, as in febrile affections, they indicate an effort of nature to relieve the system, and point to the utility of alkalies—useful, likewise, when the urine is saccharine.

III. RELIEF OBTAINED BY INCREASED SECRETIONS FROM THE SKIN.—The importance of the relief afforded by the skin may be gathered from the subjoined table:—

TABLE XVI.

Cutaneous Exhalations in 300 *out of* 500 *Women.*

	No. of Women.
Perspirations attendant on flushes	201
Perspirations occurring monthly	2
Sweats	84
Cold perspirations	13
Total	300

With the exception of the few cases in which the perspirations were cold and clammy, this exhalation is associated with

an increased production of heat, and with that irregular distribution of it which is called "flushes." These occurred to 244 women out of 500; 14 others were troubled with "dry flushes." The flushes determine the perspirations. Both evidence a strong effect of conservative power, and, as they constitute the most important and habitual safety-valve of the system at the c. of life, it is worth while studying them, though they have not hitherto been deemed worthy of serious consideration.

It must have struck many, that at the c. of life most women have the power of generating a more than usual amount of heat; they often want less clothing, and even in winter leave their doors and windows wide open. Sometimes, however, instead of being regularly distributed, this caloric bursts forth as flushes, the starting point of which seems to be in the epigastric region, for women feel as if something started from there, spread over the chest, or more frequently over the face, which becomes suffused and hot. I have heard women compare their sensations to burning steam rising from the pit of the stomach. These flushes may be considered as cases of pathological blushing. They sometimes come after a chill, or a momentary sensation of shivering, or after sinking and faintness at the pit of the stomach, but oftener without these sensations. If the flushes do not terminate in a gentle moisture of the skin, women call them "dry heats." The flushes may last two or three minutes, but it will often take a quarter-of-an-hour to carry off the effects of each wave of heat that is wafted to the surface. The number of flushes occurring in the course of the day varies extremely. Their spontaneous repetition, 5 or 6 times an hour, either by day or night, is not uncommon to women at the dodging-time. Some months after cessation, they frequently occur only 7 or 8 times in the day. This may be the case for years after cessation, and even in extreme old age under the influence of worry or ill-health, but then they have not the intensity which renders them so distressing at the c. of life. The recurrence of flushes so late

in life is not to be wondered at, for woman has been made a blushing creature, and who has not seen women of 60 or 70 blush at the thought of a possible offence to modesty?

The face and chest generally suffer most from flushes, but some other part of the skin may be affected, like that covering the abdomen, or the thighs; "the hands and nails of a lady became like fire," but although the skin was on fire the pulse was often weak and slow. Robust women, of a sanguine temperament, are more troubled with flushes, confirming Sir J. Ross's assertion, that the sanguine temperament has a peculiar power of generating heat, denied to the pale, sallow, and phlegmatic. The received notions respecting animal heat throw no light on the generation of caloric at the c. of life, so I question the correctness of a theory which cannot, at the same time, account for the pathological developments as well as for the normal manifestations of this power. In what way does the pulmonary theory of heat explain the various forms of fever? How is it that there may be intense fever when the lungs are so extensively consolidated as to leave but a small area for the combustion of air? If it were evident that a room became more and more heated as the quantity of fire in the grate was diminished, would it not be inferred that the room was warmed by some other source? Why should not the same reasoning be applied to the human edifice? Why should it be forgotten that all molecular actions generate heat, and that these actions incessantly proceeding in living bodies must generate heat as permanent and continuous as their nutrition, beginning with life to cease only with it? The quantity and quality of this heat varies with the quantity and quality of the blood, which is the fuel of the animal combustion, proceeding in the breadth and depth of our tissues, so that if the blood is in a healthy condition the heat is physiological, if on the contrary, it is the heat of fever. I have thus accounted for one common stock of continuous chemical heat, but how is it collected? and what are the laws of its distribution? At times

it will burst forth in fitful paroxysms, but as in intermittent fevers these ebullitions of heat follow a rhythmical march, so I conclude they are governed by the nervous system, which holds the blood-vessels and nutrition in its web-like grasp. There are then *nervous* bursts of heat, distinguishable from *chemical* heat. One feels cold before dinner; a few mouthfuls of solid food are taken and sensations of warmth are produced, not to be explained by the assimilation of yet undigested food; that is *nervous* heat. When the food turns into chyle, passes into the blood and becomes the pabulum of the chemical actions of nutrition, there is a marked increase in the amount of *chemical* heat.

Blushing exemplifies nervous heat. The mental portion of our being first receives an impression, and instantaneously communicates it to the emotional; then follows the sudden reaction on the epigastric region; a momentary concentration of force takes place, during which the skin is somewhat paler and colder than usual, there is almost an imperceptible sigh, a glow is felt at the precordial region, a sudden something seems to rush forth from the epigastrium, swift as a flash of lightning, and then wave after wave of blood is poured in burning streams to the whole surface, or only to the neck and face, which appear a living blaze of blood. The heat passes off, and the blood retreats from the capillaries, resuming its slower course, unless the emotional feelings become once more aroused. Thus, in the physiological phenomena of blushing, heat is evolved by the reaction of emotion on the voluminous ganglia and plexus of ganglionic nerves situated at the pit of the stomach; but what this nervous centre does under the influence of emotion it also does *spontaneously*, causing pathological blushing—the heats or flushes to which women are subject at the m. periods, during pregnancy, and lactation, but chiefly at the c. of life; in fact, whenever the ganglionic nervous system is called upon for increased action. This confirms the assertions of the oldest physiologists, for

Hippocrates noted shivering and an unusual development of caloric to be a sign of conception, Galen considered the reproductive organs to be a source of caloric for the system, and Brongniart discovered that even in plants reproduction is attended by an appreciable increase of their usual temperature.

The influence of the ganglionic nervous system in the distribution of animal heat has been experimentally shown by one of the most promising physiologists of the day. Claude Bernard found that the section of the sensory and motor nerves was not followed by any increase of heat, but on dividing the nerve by which the superior and inferior cervical ganglia communicate, and thus preventing the influence of the great sympathetic nerve from proceeding to its central ganglia, great heat was developed in the capillaries above the point of section of the ganglionic nerve. These experiments have been repeated by Dr. H. Jones, who observes, that the division of a sympathetic nerve causes the blood-vessels within its range of distribution to dilate, the pulsation of the arteries to become more energetic, and the temperature to rise as much as 10° and 15°. Something similar occurs at the c. of life. The demise of ovarian activity reacts on the ganglionic system, half paralyses it, and thus leads to a greater development of heat, and to its irregular emission from the surface. Flushing, like a fit of ague, has a period of concentration, a hot stage, and one of perspiration; but, as in ague there is often no first stage, so flushing frequently comes first, and often, without any previous congestion of the capillaries, perspiration is seen continually oozing out of the skin, where it stays until it is wiped away or rolls off. Why continued perspirations are so frequently met with at the c. of life, and how they preserve women from worse evils, cannot be answered without some inquiry into the physiology of the skin.

With regard to the extent of the surface operated upon by nature, the entire surface of the body being estimated at 14 square feet, it has been calculated that there are 10,000,000

pores through which perspiration flows, besides the openings by which the sebaceous glands emit their lubricating products. Lavoisier estimated that, in 24 hours, 20 oz. of perspiration were lost by the skin. Dr. Southwood Smith has shown that a robust man, working hard in an intense heat, may lose 5 lbs. of his weight in an hour, so that the emaciation of those who perspire much is to be understood as well as the *embonpoint* of those who perspire little.

Long ago Sanctorius established that "Insensible perspiration alone discharges much more than all the other evacuations put together." Valentin found that his average hourly quantity of perspiration amounted to 463·3 grains, and that by walking up and down hill, to sweat copiously, more than four times this quantity was excreted, or 2048·8 grains. The average amount of water in the human blood is 78 per cent., so that sweating gets rid of its redundant portion; but with regard to the other components of perspiration, it is worth while to place on record the researches lately undertaken by Dr. Favre, of Paris, on 110 lbs. of perspiration, obtained from a healthy man;—14 litres or 28 lbs. of perspiration gave the following results:—

		Pour 14 Litres. Grammes.	Pour 10,000 Grammes. Grammes.
Solubles dans l'eau.	Chlorure de Sodium . .	31,327	22,305
	Chlorure de Potassium .	3,412	2,437
	Sulfates Alcalins	0,161	0,115
	Phosphates Alcalins . . .	Trace	Trace
	Albuminates Alcalins . .	0,070	0,050
Solubles dans l'eau acidulée.	Phosphates alcalino-terreux	Trace	Trace
	Débris d'Epiderme . . .	Trace	Trace
	Lactates Alcalins . . .	4,440	3,171
	Sudorates Alcalins . . .	21,873	15,623
	Urée	0,599	0,428
	Matières grasses	0,191	0177
	Eau	13,938,027	9,955,737

Dr. Favre draws the following conclusions from his researches:—

1. That the materials of perspiration are almost entirely soluble in water.

2. That chlorure of sodium constitutes the chief solid constituent of perspiration, the alkaline sulphates and phosphates being in very small proportion. In this respect, perspiration differs much from urine, as will be seen from the following analysis of similar quantities of each :—

		Perspiration 14 litres.		Urine 14 litres.
Chlorides .	grammes	34,639	grammes	57,018
Sulphates .	„	0,160	„	21,709
Phosphates .	„	Trace	„	5,381

3. Lactic acid, combined with alkalies, exists in the perspiration. It would be worth while ascertaining whether its quantity be augmented or not in the acid perspirations of lying-in women, in the sweats of over-lactation, or in those of the c. of life.

4. Sudoric acid combined with alkalies, a hitherto unnoticed component of perspiration, is one of its principal elements. The composition of this acid is somewhat similar to that of urea, which is not normally found in perspiration; but when perspiration is stopped, as in the experiments of Seguin and Anselmino, the kidneys may transform sudoric acid into uric, and excrete it as urate of ammonia.

5. The existence of urea in perspiration completes the analogy of this fluid with urine—both containing strongly oxidized substances.

6. Perspirations of the same subject, though taken at different times, do not vary in composition, but when the fluid taken during the first half-hour of the experiment is compared with that taken during the 2nd or 3rd half-hour, a larger quantity of the mineral salts is found expelled during

the latter periods. The proportion of water to the other components of perspiration does not seem to vary.

At the c. of life is the quantity of perspiration increased, or are only some of its components altered in their amount?

Does perspiration vary in different subjects?

In complaints which are attributed to checked perspiration, is its amount lessened, or is there a diminished secretion of some of its constituents?

Does cold merely act on the nervous expansions of the skin, and cause disease by interfering with the electrical currents continually proceeding from the surface?

Leaving these unanswered questions, it is not difficult to understand that as the skin is the most easily moved of all the safety valves of the system, it is most frequently influenced by the c. of life; while the small proportion of solid removed from the blood by sweat, explains why this forms an ineffectual crisis, the necessity for which is ever recurring, unless other changes have been effected. The critical nature of the perspirations occurring at the c. of life, is shown by their appearance after sudden suppression of the m. flow, after diarrhœa or leucorrhœa. Thus in Eliza C., aged 60, the m. flow suddenly ceased at 43, after getting her feet wet; and the perspirations were often so intense that the bed-clothes could be wrung.

Mary M., aged 55. The m. flow came at 19 and left at 30 by a flooding; she has ever since been subject to flushes and perspirations, by which her health has been preserved. After cessation the perspirations generally diminish, though I have noticed drenching ones to return 5 years after, in consequence of great anxiety, and 29 years after in a strong healthy old woman of 67. The perspirations do not always cover the whole body, but are limited to certain portions. Two of my patients always wear flannel at the pit of the stomach, because they perspire so much there that their clothes become saturated. Like Tissot, I have seen gentle perspirations converted into sweats for a few days every month.

IV. RELIEF AFFORDED BY MUCOUS FLOWS.—The following table shows the frequency of mucous flows at the c. of life :—

TABLE XVII.

Frequency of Mucous Discharges amongst 500 Women at the c. of Life.

Nature of Mucous Flow.	No. of Cases.
Leucorrhœa at irregular intervals	146
Monthly leucorrhœa	12
Repeated vomiting of mucus	31
Water-brash	5
Frequent diarrhœa	45
Monthly diarrhœa	5
Total	244

These mucous discharges must be considered as taking the place of the m. flow, for they were usually preceded by the same symptoms, particularly when they came periodically, a fact already noticed by B. de Boismont. The critical nature of these discharges shows that they may require to be restrained, though not stopped. Of 260 women in whom the m. function had ceased, 143 had never been subject to leucorrhœa; of the remaining 17—

The vaginal secretion was increased at cessation in .	77	cases.
It was diminished in	24	„
It remained stationary in	16	„

With regard to periodical leucorrhœa. In one case this occurred regularly every month for a year, for 18 months in another, in several for 2 years, and in one for 7 years. Most of these cases occurred to women in whom the m. flow had suddenly ceased.

V. RELIEF AFFORDED BY HÆMORRHAGES.—The extent to which women are relieved by hæmorrhages is shown by the following table.

TABLE XVIII.

Comparative frequency of Hæmorrhages at the c. of life amongst 500 Women.

Varieties of Hæmorrhage.	No. of Women.
A terminal flooding	82
Successive floodings	56
Bleeding piles	24
Entorrhagia	20
Epistaxis	12
Hæmoptysis	8
Cerebral hæmorrhage and apoplexy	6
Hæmatemesis	4
Hæmaturia	1
Bursting of varicose veins	3
Bleeding from external auditory canal	4
Cutaneous ecchymosis	3
Bleeding from a temporal vein	1
Total	208

Vicarious menstruation is rare at the c. of life, but a bloody discharge from the nipples has been known to occur every month for 5 years after the m. flow had ceased; and Dr. Semple has recorded the case of a woman, aged 80, who, every other month, bled from the nose, or menstruated as in youth. These various hæmorrhages are more or less successfully critical. The floodings at the c. of life prevent serious illness, and afford time for the slow readjustment of the system. Successive floodings occur as often as the frame is overloaded by blood, returning at longer intervals and to a less amount.

FINAL RESULTS OF THE C. OF LIFE.

Having shown the nature of the phenomena which characterise the c. of life and tend to remodel the female organism, I shall now briefly sketch the results obtained. M. Flourens says, "from 40 to 55 is a period of *invigoration* for both sexes,—a period in which the deep interior work proceeding in all our tissues renders them firmer, and thereby ensures a more perfect performance of all the functions. This change is insensibly worked out in man, but in woman the passage is often perilous, and the result is more marked. The great improvement in the general health subsequent to the c. of life is a notorious fact." Dr. Day, in his valuable work on "Diseases of Old Age," has not failed to note the true character of the changes taking place at cessation, for he shows how climacteric decay is less frequently observed in women than in men, not only because women lead a less tumultuous life, but because their constitution has been so remodelled by the c. of life that the causes of this decay have less hold over them." The immense importance of this change on the subsequent lifetime of women cannot be too highly rated, and as it is well got over or full of suffering, so will the subsequent lifetime be healthy or otherwise. It is a *final* settlement, for if it does not bring up pathological seeds fatal to the system, the rest of life is generally passed in uninterrupted health. This final change causes longevity to be attained more frequently by women than by men; but the invigoration of health is bought at some sacrifice of feminine grace. The appearance becomes somewhat masculine, the bones project more than usual or become buried in fat, the skin is less unctuous, and tweezers are sometimes required to remove stray hairs from the face.

The effects of this disturbance of ovarian action on the mental faculties towards the first part of the c. of life have been already alluded to. There is almost always some

these forms of moral insanity are susceptible of being cured by judicious treatment, as I shall amply show hereafter, and when the c. of life is passed, the habitual rectitude of moral vision returns. Doubtless the subsidence of ovarian action deprives one form of love of those strong emotional impulses which gift the passion with such fearful energy; but although the heart becomes at last able to listen to the head, still love rules paramount in the breast, and whether called charity, friendship, conjugal or parental affection, it engrosses the thoughts, and failing all other forms and opportunities of love, religion takes a stronger hold.

When safely anchored in this sure haven, a woman looks back on the time when her health was disturbed by ever-recurring infirmities, by pregnancy with its eccentricities, by the perils of child-birth, and the annoyances of nursing. From the tranquillity she has attained, she may well revert to the long years when love, jealousy, and their attendant emotions often harrowed up her soul, presenting to the mind everything through the delusive prisms of passion. She will find how much her existence is changed from what it was, and will understand the saying of Madame de Deffand—"*Autrefois quand j'étais femme.*"

I have noticed the influence of a weak constitution, as explaining early cessation in a few cases; but in other respects, I have considered women as if they were all made of the same stuff, and after the same pattern. The modifications brought about by difference of constitution and temperament, will lead me to discuss in the next chapter the causes of disease at the c. of life. I shall merely state, that favourable effects often follow cessation in weak constitutions, and that delicate women, [illegible] by menstruation, often then take a new lease of [illegible] having concluded what relates to the c. of life in [illegible]. I shall now treat of the theory and practice of diseases [illegible] period.

CHAPTER III.

GENERAL PRINCIPLES OF PATHOLOGY AT THE CHANGE OF LIFE.

A REFERENCE to the works written on diseases of the c. of life by Gardanne and Dr. Menville would show the reader, that like all who have written upon the subject, they consider diseases of the critical time all which may afflict a woman after her 50th year. This is perfectly absurd, for many diseases may equally occur at 60 or 30, without any connexion with a particular period. Again, as women grow old, diseases attack them, not because they are women, but because they are advanced in years, such as affections of the heart and of the arteries, softening of the brain, &c. Surely those should only be called "diseases of the c. of life" which occur for the first time, or with great aggravation during that period, variable as it is in each individual, but often comprising the 3 years previous to, and the 5 years subsequent to, cessation.

The affections of the c. of life sometimes come on before any marked irregularities in the m. flow. Thus, Mrs. B., a tall, portly lady, aged 50, is said to be still regular, but for the last few months she has suffered from burning flushes, and her hands often become scarlet to the tips of her fingers. Some have merely flushes and slight perspirations for about 3 to 5 years after cessation, at the end of which time severe symptoms occur, and I attribute them to the c. of life, because they are exactly similar to symptoms frequently occurring in immediate connexion with cessation. Sometimes diseases of the c. of life occurred from the sudden interruption of the heats and flushes which had hitherto proceeded unin-

terruptedly; at other times the skin continued to act as the safety valve of the system, until the health broke up under the aggression of some mental or physical shock. In some instances no cause could be traced, but the advent of disease frequently coincided with an imperfect m. nisus, indicated by abdominal pains and a m. flow, which, although very slight in quantity, and recurring 3 or 5 years after cessation, clearly indicated the nature of the attendant symptoms. Gout, rheumatism, or nervous affections, first occurring at the c. of life, may continue through the remainder of existence.

It is well known that, at some time or other of life, each organic apparatus becomes a normal or abnormal focus of action for the general circulation; for instance, the genital organs at puberty and cessation. Each well-marked period has its own particular stock of pathological calamities, and if the diseases common to one epoch do not cease at the beginning of the next, they generally continue during the whole period, or in other words, critical times are *perfect*, leading to the renewal of health, or *imperfect* and determining a succession of ailments. The c. of life not only determines some diseases for the first time, but finding also the germs of others, such as gout, cancer, &c., it gives them an additional impulse so as to renew health, or curtail life. Previous authors affording little information, I have endeavoured to obtain a correct bead-roll of the infirmities entailed by the c. of life, and have set down very minutely whatever could be detected morbid in 500 women. The following table, therefore, shows the comparative degree of frequency of morbid symptoms at the c. of life:—

Table XIX.

Showing the relative frequency of Morbid Liabilities at the c. of Life in 500 Women.

Nervous irritability	459	Dorsal pain	226
Flushes	287	Epigastric faintness	220
Pseudo-narcotism	277	Headache	208

Abdominal pain	205
Perspirations	201
Leucorrhœa	146
Hysterical state	146
Flooding once or repeatedly	138
Sick headache	92
Sweats	84
Piles, not bleeding	62
Biliousness, obstinate	55
Epigastric pain, or strange sensations	49
Phosphatic and lithic urine	49
Diarrhœa, irregular	45
Debility, intense and long continued	41
Chloro-anæmia	40
Dyspepsia	37
Remittent menstruation	33
Vomiting, repeated	31
Abdomen much swollen	26
Fainting away repeatedly	25
Piles, bleeding	24
Constipation, obstinate	23
Entorrhagia	20
Œdematous legs	19
Undetermined cutaneous eruptions	18
Globus hystericus, only since cessation	17
Regular monthly pains without m. flow	16
Insanity	16
Dry flushes	14
Mammary irritation and swelling	14
Perspirations, cold	13
Leucorrhœa, monthly	12
Epistaxis	12
Inflammation, or ulceration of the neck of the womb	11
Deafness	11
Follicular inflammation of the vulva	10
Difficulty and pain in passing urine	9
Hysterical asthma	8
Intense hysterical flatulence	8
Hæmoptysis	8
Monthly headaches	7
Rheumatism of joints	7
Ulcerated leg	7
Diarrhœa from 3 to 6 times daily for years	7
Intercostal neuralgia	6
Paraplegia	6
Jaundice	6
Apoplexy and hemiplegia	6
Supposed pregnancy	6
Colics habitual for years	6
Nettlerash	5
Ovarian pain, constant	5
Waterbrash	5
Epilepsy, increased	5
Prolapsus of womb	5
Cancer of womb	4
Inflammation of vagina	4
Bronchitis	4
Inability to retain urine	4
Laughing and crying fits only since cessation	4
Labia, repeated inflammation of	4
Numbness, pricking and loss of sensation in arms and hands	4
Uterine fibrous tumours	4
Hæmorrhage from ears, increased	4
Prolonged fits of unconsciousness	4
Vomiting of blood	4
Polypus of womb	4
Erysipelas	4
Sciatica	4
Epilepsy, brought on	3
Delirium	3
Pus in motions	3
Cutaneous ecchymosis	3
Prurigo	3
Puffed face	3
Inflammation of legs, with great distension of veins	3
Eczema	3
Ovarian tumours	3
Aching under nails	3
Inflamed rectum	3
Hysterical fits, only since cessation	3
Hemicrania	3
Consumption aggravated	3
Bleeding from varicose veins of leg—in one case 3 times	3
Eczema increased	2
Monthly blood in motions for 6 months	2
Boils in seat	2

Aortic pulsation	2	Hysterical paralysis of arms	1
Legs burning and painful	2	Falling-off of all the nails	1
Intensely hot hands	2	Peritonitis	1
Abscess in arm-pits	2	Chronic otorrhœa	1
,, fingers	2	Inflamed eyes	1
,, neck	2	Toothache	1
Gout	2	Morbus cordis	1
Peeling of nails	2	Shingles	1
Erectile tumour of the meatus urinarius	2	Herpes circinatus	1
Brow ague increased	2	Mammary cancer	1
,, brought on	1	Varicose veins brought on	1
Hæmaturia	1	,, aggravated	1
Monthly failure of strength	1	Bleeding from frontal vein	1
,, hysteria	1	Limpid secretion from breast for 4 years	1

In my first edition, I stated that the real diseases of the c. of life were the morbid exaggeration of some phenomena natural to cessation. Thus, as flooding occurs as a natural phenomenon at cessation, it may be attended by circumstances which may constitute it a disease. As increased perspiration is a natural phenomenon of cessation, so it may occur to a morbid amount under the form of continued sweating. The mild forms of cardialgia are frequent accompaniments of cessation; therefore, the severer forms of the complaint may be expected. Cessation is almost always attended by slight and varied cerebral disturbance; therefore, severe nervous affections may frequently be expected. The foregoing table admirably confirms the views I have long entertained, for it shows that the real diseases of the c. of life are the first 25 on the list, whose occurrence has been so frequent that they may be predicted, prevision being the only criterion of the excellence of science, since it permits prevention. After the first 25, the frequency of other diseases falls below 5 per cent., for they either form special varieties of the more common complaints already enumerated, or, like cancer and gout, they may occur at other times besides the c. of life. Sometimes, also, by the singularity of their nature and by the rarity of their occurrence, they are evidently shown to be personal contingencies indicating how the impetus of morbid action was most felt by

the weakest organ. The table likewise shows that the diseases to be really feared at the c. of life are not so much cancer and other organic diseases of the ovaries and womb, with which women are continually frightened, as the neuralgic affections of the cerebro-spinal and ganglionic systems, and that gastro-intestinal affections are more to be feared than floodings.

In commenting on the diseases enumerated in the previous tables, I shall class them according to the system of organs of which they constitute functional or structural complaints; throwing into a last chapter those diseases which cannot be included under previous heads.

The causes ascribed to diseases of the c. of life are as follows:—

I. Weakness of constitution.—II. Temperaments.—III. Constitutional disorders.—IV. Weakness of particular organs.—V. Uterine affections.—VI. Unusual suffering at puberty and at m. periods.—VII. Sudden cessation.—VIII. Disease and abuse of the reproductive organs.—IX. Social position.

I. Weakness of constitution.—The best way to avoid the dangers of this critical time is to meet its approach with a healthy constitution. A marked want of strength prevents the regular succession of the vital phenomena on which I have shown the c. of life depends, leads to continued debility, to a tendency to faint, to chlorosis, to erratic nervous disorders, and complaints remain chronic because there is not stamina enough to carry them briskly through their stages.

II. Temperaments.—I have stated that women of decidedly lymphatic temperaments often derived marked benefit from the c. of life. Their colder nature is less liable to be disturbed by bilious and nervous disorders, while the blood that was wont to be eliminated is turned to the improvement of the frame. Women of a sanguine temperament are naturally most liable to plethora, and therefore to floodings, hæmorrhages, and apoplexy; but if they are most subject to dangerous

struation may likewise be expected to precede its cessation. Baron Alibert informed me that he had observed some cutaneous eruptions appear twice only in life—once before the first appearance of the monthly flow, and once at its cessation. B. de Boismont, and others, likewise notice the appearance of hysteria and epilepsy before these two important epochs, the patients' life having been free from these diseases during the intervening period. Sir H. Marsh states having several times noticed that women, in whom the establishment of puberty had been preceded by repeated epistaxis, experienced the same accident as a prominent symptom of cessation. In my own practice, I have several times seen puberty and cessation preceded and attended by an abundant eruption of boils, by long-continued otorrhœa, frequently by continued diarrhœa, and still oftener by a great amount of pseudo-narcotism and hysteria in cases where there was little or none during the persistence of the monthly function, child-bearing, or lactation.

Spinal deviations slightly developed at puberty may become very marked at cessation, as in a case given by B. de Boismont, where a lady, comparatively straight, became deformed at the c. of life. The fact of the m. periods having often been unusually painful, is a reason to fear that the c. of life will be fraught with infirmities, and the same applies to those in whom the m. flow has been very irregular, and liable to deviations. Thus B. de Boismont relates the cases of two women, in whom the critical discharge took place from the mouth, even after they had borne children. At the c. of life, one became rickety, the other had ascites. In some, the liability to disease at this period, might be referred to the predominance of a nervous temperament; in others, it depends on hidden peculiarities, which render the performance of the various acts of the reproductive function calamitous through life.

VII. SUDDEN STOPPAGE OF THE M. FLOW.—It was logical to suppose that a drain, lasting for 32 years, could not suddenly

cease without causing serious illness; and Meissner, with many others, attribute to this cause the most disastrous effects, though without truth; otherwise sudden cessation would be most frequent in those who suffered most at the c. of life. This is not the case, for in 383 women in whom the m. flow had ceased, 223 had suffered much, 121 little, and 39 not at all. Sudden cessation occurred in each class in the following proportion:—55 out of the 223 who suffered most, 31 out of the 121 who suffered little, and 23 out of the 39 cases who did not suffer; so that while sudden cessation only occurred in about one-fourth of the severest sufferers, it occurred in about two-thirds of those who did not suffer at all. On studying the 39 cases, I was struck by their presenting a singular absence of all m. disorders. In many the m. flow began suddenly, appeared regularly, without disturbance, and ended in the same way.

Jane B., aged 55. The m. flow suddenly left at 32, without other ill effects than long-continued debility. Its first appearance was sudden, and menstruation had been painless. The current belief in the dangers of sudden cessation is grounded on some isolated cases in which it proved dangerous, owing to the action of other causes: thus, in two plethoric subjects, hemiplegia was induced; but alone it will not cause diseases of cessation, because the system is equally suddenly relieved by some critical discharge, and most frequently by well-sustained perspirations.

VIII. DISUSE OR ABUSE OF THE REPRODUCTIVE ORGANS.—Gardanne and other writers countenance the popular prejudice that the unmarried are most liable to flooding, to cancer, to ovarian and uterine tumours at the c. of life, but there is no truth in the assertion. The single pass through this period without more trouble than the married—and, so far as I can ascertain, suffer less than other women. Gardanne likewise asserts that prostitutes suffer much at this epoch, an assertion utterly groundless, for those seeds of moral worth, which cannot be

stifled even in the most degraded, prevent their carrying on their pursuit for more than three years on an average; so that they have seceded from the ranks of infamy long before the c. of life.

IX. SOCIAL POSITION.—I believe with Dusourd, whose practice lay in an agricultural district in the south of France, that peasant women suffer little at this period. They belong to the *genus inirritabile*, and are therefore little liable to nervous disorders. Their health is generally good when the c. of life comes on; flooding is frequent, but effectually critical, and they take little heed of the flushes and perspirations which annoy the spoiled daughters of civilization. The poor of large towns suffer much at this epoch. The necessity for working hard, the anxieties of poverty, the impossibility of escaping even for a few hours in the day the annoyances of children, increase the sufferings of the poor at the c. of life. Certain occupations have a similar effect; thus, Auber says that washerwomen suffer more than others, on account of the vicissitudes of temperature to which they are exposed. The close, damp, and heated rooms in which book-folders, catgut makers, and others are obliged to work, increase the sufferings of many; but He, who ever tempers the wind to the shorn lamb, has so disposed it, that the necessity for working hard is in itself a preventive and curative of nervous affections at this period, and, on the whole, the poor suffer less than the rich. Luxury is the hot-bed of nervous affections. They grow there in such profusion, and run into such strange eccentricities, that pathologists have given up the idea of completing their catalogue. Of what use is leisure to practise all the appliances of hygiene, without the resolution to use them? Many of the poor are not forced to work in atmo spheres so injurious as those of the heated ball-room frequented by the wealthy, who do not sufficiently avai themselves of the possibility of visiting different medicatec springs, at once the most agreeable and effectual mode

restoring health at the c. of life. In going through my numerous cases, to discover why some women suffer so much and others so little at this period, I came to the conclusion that it does not so much depend upon the strength, original or acquired, which the system enjoys, and which is *constitution;* nor on the visible predominance of one set of organs over the other, which is *temperament.* Neither does it depend on the m. flow ceasing early or late, nor on women being single or married, rich or poor, but on a peculiar susceptibility of the nervous system—a condition which, though hidden from the eye, even if assisted by the microscope, is evident from the manner in which it responds to the reproductive and all other stimuli. Those who suffered much at the c. of life had often suffered much at puberty and at m. periods; while these had seldom been attended with distressing symptoms in women who suffered moderately at cessation; and amongst the 39 cases where there was no suffering, there was a similar immunity at puberty and the m. epochs. I, therefore, conclude that the diseases of the c. of life, like those of puberty, are principally to be ascribed to the nervous system being unable to tolerate the stimulus imparted to it by the reproductive organs, for when the nervous system is well-tempered, this stimulus acts as an improver instead of a disturber of health. Vital acts, however, are never found cut and squared with mathematical precision, as they are represented by some writers; there are, therefore, exceptions to this rule, and I have had patients who suffered much at cessation, whose previous good health had been uninterrupted. These remarks are a fit introduction to what I have to say respecting the theory of the production of diseases at the c. of life; for of what use is a long enumeration of medical facts unless it lead to a good theory, explaining their production and preventing their occurrence?

The more abundant quantity of blood, or its defective

qualities, will account for congestions of organs, for hæmorrhages, and for other flows; but a large proportion of the nervous complaints of the c. of life are unaccompanied by plethora, and can only be explained by a disturbance in the equilibrium of the nervous forces, by which the frame is energised. For 32 years the womb is a powerful centre of attraction, causing it once a month to be the focus of strong blood-currents from all parts of the body. A strong mental or pathological perturbation sometimes so divides the blood-currents, that while a portion is directed to the womb, the rest is sent into some weak organ, which becomes congested, if unable to throw the blood off from its surface. The same occurs during the c. of life. Part of the blood is still every month directed towards the womb, which is thereby congested, while disease may be induced by the monthly current setting in towards a weak organ. After 3 or 4 ounces of blood have been retained for a few months, plethora may be induced, if the nutritive force is unable to use the blood to strengthen the interior framework, or to produce fat. Plethora once induced, the system is oppressed and rebels, and if the constitutional powers are sufficiently strong, they throw off the blood, but if they are below par, they suffer the blood to stagnate in congested tissues.

It is, however, unreasonable to attribute to plethora most of the cerebro-spinal and ganglionic affections of the c. of life. Thus formerly when women suffered from headache, giddiness, drowsiness, and dulness of intellect, they used to be bled, cupped, or leeched; but though this nervous condition, which I call pseudo-narcotism, may co-exist with plethora, it is not proportionate to it, and may often be found in women who have become chlorotic at cessation, as well as in those whose amount of blood is well apportioned to the wants of the system. To explain, therefore, the occurrence of all the diseases of the c. of life, it is necessary to take into consideration the *altered* condition of the ganglionic nervous

system during the first and second parts of this period. The condition of the ganglionic system cannot be materially altered without inducing cerebral disturbance, and this must be admitted before diseases of women can be understood. In searching how it is that ovarian disturbance induces morbid action, it must be remembered that, during health, the effects of the monthly crisis on the female economy should not only be considered, but the continued action of the ovaries on the system. The results of this influence, when morbidly exerted, are often evident long before the first m. flow, and long after cessation. When a girl of 10 years of age is more or less in a constant state of pseudo-narcotism, without any sign of the well-recognised forms of cerebral or gastric disease, the premature morbid influence of the ovaries on the cerebral system is manifest, and Landouzy has rightly admitted that the ovaries may produce hysteria, long before the appearance of the first m. flow or the imagination of sexual ideas. I have seen girls affected with pseudo-narcotism 8 years previous to first menstruation, and women suffering from it 10 years after cessation. When, therefore, I do not find it explained at the c. of life by gastric, hepatic, or cerebral disease, I consider it indicative of cerebral disturbance caused by perverted ganglionic influence, the most frequent result of disturbed ovarian action, not only at puberty and cessation, but at each m. period and during pregnancy and lactation. This perversion of ganglionic nervous power at the c. of life is the result of increased ovarian irritability previous to the subsidence of specific ovarian functions. In many women, the excessive ovarian irritability, evident by so many symptoms, cannot but react on the ovarian plexus, and thereby on the ganglionic nervous centre. In many, ovarian life is not extinguished and the ovarian plexus condemned to inaction, without the abdominal federation of ganglia and plexus, feeling the want of that specific influence which had ruled the system for the previous 32 years. Then occurs an

irregular distribution of those nervous currents which determine the movements of the different fluids,—the ataxic nervous symptoms, which Sydenham dilates on when treating of hysteria. Then occur all sorts of erratic nervous pains, as well as the anomalous symptoms referred to the pit of the stomach, and the cerebral disorders of which I shall fully treat hereafter.

I have stated, that out of 383 women in whom the m. flow had ceased, 223 suffered much, 121 little, and 39 not at all; yet I do not consider that the proportion of 39 to 383 gives a fair idea of the manner in which the c. of life tells upon women, for the non-sufferers having nothing to complain of, seldom come under medical notice. The most frequent forms of disease at the c. of life may be gathered from the following table; but the reader will bear in mind that I have been consulted in many unusually severe cases, on account of my being known to have given particular attention to the subject.

TABLE XXI.

Nature of the affections of 500 Women at the c. of Life.

Nature of Disorder.	No. of Women.
Uterine affections	463
Gastro-intestinal affections	354
Cutaneous affections	705
Diseases of nerves	487
——— ganglionic system	406
——— the cerebro-spinal system .	1272
Various affections	43
Total	3730

This would give to each of the 500 women 7 distinct modes of suffering, the prognosis of which, with the exception of cancer, organic diseases, and the worst forms of mental suffering, is not serious; but they are often tedious, ever-recurring, and destructive of peace and happiness.

CHAPTER IV.

GENERAL PRINCIPLES OF TREATMENT AT THE CHANGE OF LIFE.

If there be diseases of the c. of life, and this has, I think, been sufficiently proved in the preceding chapter, there must be general principles of treatment. The natural history of the reproductive function has enabled me to state the complaints which are to be expected at this period, and will also point out their rational treatment.

If nature bled, in different ways, 208 women out of 500, it evidently shows that this spontaneous effort of a hidden force to relieve the system often deserves imitation. If 326 out of 500 suffered from sinking at the pit of the stomach, from fainting, debility, and chlorosis, it shows that stimulants and strengthening treatment may be as indispensable at the c. of life as at puberty. If 75 out of 500 had frequent diarrhœa or constipation at this period, it shows that purgatives may often be safely exhibited. If 285 out of 500 had unusual perspirations or sweating, it is a positive proof of the utility of sudorifics at this epoch. If 134 out of 500 suffered continually from biliousness, jaundice, waterbrash, vomiting, and dyspepsia, it is clear that alkalies will be often useful. If in 277 out of 500 the nervous system was actually steeped in a more or less intense state of stupor, it is an indication of the great utility of sedatives. If, in many, the organ most prone to disease suffered most at this period, does it not show the necessity of discovering this weak organ from the patient's previous history, so as to give it protection?

In exhibiting remedies at this period, it is necessary to guard against a prejudice firmly rooted in the minds of many,

that the c. of life is synonymous with old age, for the ciples of treatment applicable to diseases of old age wil suit those of the c. of life. Then, as at puberty, there ma vital energy, but latent and oppressed, so that bleeding lowering measures sometimes develop an unexpected am of strength. The preceding modes of medication are mo less applicable to all diseases at the c. of life; I shall ther treat of them generally, so that when particular compl come to be considered, general principles may be referre I thoroughly believe in the efficacy of the modes of treat thus suggested by the study of natural phenomena, for se cases recorded in this work will show how, by following suggestions of nature, I have been able, in a few day relieve patients who had been suffering for years. With exception of those afflicted with cancer or structural affect the number unaffected by treatment is extremely small, th many, satisfied with a first instalment of recovered he will not allow a perfect recovery to be made. They w rather bear their accustomed evils than submit to the te of following out a systematic plan ; they oppose the stubb ness of prejudice to advice founded on fully proved f and then impertinently talk of the "deplorable ineffica medicine," when in fact *they will not be cured.*

BLEEDING.—The *natural history* of menstruation inf me that at its cessation, nature has sought relief by hæ rhages from different parts of the body in 208 women o 500. As they are often relieved by the loss of blood, natural process is evidently worthy of imitation, and it been extensively copied by illustrious medical men of fo times, and lately by Tissot, Hufeland, and Meissner. Fo gill and Heberden were convinced that sudden deaths greatly increased in England since bleeding at the spring fall had gone out of fashion. Whatever may be the tru this assertion, I am convinced that the sufferings of r women are aggravated from bleeding being so seldom res

to; notwithstanding the sanction of great names, and its being commended by the facility of understanding that the well-timed subtraction of a small quantity of the 25 lbs. of blood circulating in the veins of women accustomed for more than 32 years to lose periodically some of the same fluid, is the best means of preventing or curing diseases originating in the cessation of menstruation, until the constitution has lost the habit of making so much blood, or can safely dispose of it. Bleeding has been abandoned, not because it was proved injurious, but because diseases of the c. of life have not received due consideration, and the profession in England has altogether set itself against bleeding. Writing in 1840, Sir H. Holland stated, that "current opinions and prejudices are wholly on the side of bleeding," and "that a physician needs all his firmness to decline the practice." How the tables are turned! Those who, in their dogmatic writings, advocate the utility of bleeding in certain well-chosen cases, now conform in practice to the general prejudice, and never bleed. One may for months attend the medical practice of a large hospital without seeing a patient bled. Few in England bleed women at the c. of life, for only 5 of the 500 patients had been bled at this epoch, and 10 cupped. No pathologist denies that hydraulic effects are produced by bleeding, and that by diminishing the quantity of blood, we slacken the energy with which it flows to some particular organ, or its momentum, and thereby diminish the liability to congestion. No pathologist has disproved the fact that by bleeding the blood is impoverished, and the number of its globules diminished. No pathologist has shown that by thus giving a smaller quantity of impoverished blood to the nutritive processes everywhere progressing, there is not a corresponding diminution of caloric emitted, and of vital energy. Bleeding has gone out of fashion, because the profession, vividly impressed with the recollection of the excesses to which, at different times, it has been carried, has learned to substitute for it calomel and antimony; but is it

not probable that by totally neglecting bleeding in inflammatory affections, calomel, antimony, and other remedies do not exert their influence so speedily as if their exhibition were prefaced by moderate bleeding? Without stopping to discuss the subject, venesection must, undoubtedly, be considered valuable in active hæmorrhage, exerting its influence by its mechanical or hydraulic, as well as by its dynamic effects; and if the redundancy of blood, of which nature has no means of disposing at the demise of the ovarian function, is an important element of disease at cessation, it follows that bleeding, so often effected by nature at this period of life, should not be neglected by those who pride themselves on understanding and on imitating her proceedings.

The reasons why plethora may be anticipated at the c. of life have been sufficiently explained. It sometimes exists with apparent weakness, which may be relieved by bleeding. In seeking to determine the utility of this measure, it is well to be guided by the state of pulse at the temples and at the heart, as well as at the radial artery, bearing in mind that, should there be much emaciation, the temporal and radial arteries would be brought nearer to the surface, and give a first impression of vigour when none exists. While the effects of bleeding are admirable in many patients presenting the plethoric type, they are sometimes detrimental to those who are chlorotic and nervous.

The most characteristic symptoms of the c. of life are, headaches, giddiness, heaviness, and drowsiness. I have drawn attention to these symptoms as of frequent occurrence at puberty, during pregnancy and lactation; and I find that whatever may be the period of their occurrence, they are often considered indicative of a determination of blood to the head, and bleeding has been resorted to. When I first began the study of medicine, I saw the ill effects of such a plan of treatment at puberty and during pregnancy; and Mauriceau gives an insight into the fearful abuse of bleeding in France about

1700, when he mentions, that two women were confined at the full time of well-developed children, although one had been bled 48, and the other 90 times, during the 9 months of pregnancy, for what he calls "oppression de poitrine," most likely nervous sensations of suffocation at the pit of the stomach, which can be removed by sedatives and antispasmodics. The same symptoms, with headache and giddiness, are, at the present day, considered as indications for bleeding by Columbat and Auber; and though in England similar mistakes are prevented because nobody bleeds, yet the fashion will change again ere long, and then will occur the danger of mistaking nervous disturbances for plethora. The following cases will, to a certain extent, exemplify the discrimination required to cure patients suffering under similar symptoms:—

CASE 10.—In 1844, the rage for bleeding again developed in France by the eloquence of Broussais, had subsided in Paris; but it was still often possible to test the ill effects of this pernicious system. About that time I was consulted by a lady, aged 51, tall, thin, with a pallid complexion, dark hair and eyes. She had first menstruated at 15, and the function had never been interrupted except by 3 pregnancies; the amount of secretion was moderate, and the function subsided gradually, being performed for the last time at the age of 48. For some months she felt no inconvenience, but afterwards she was much troubled by flushes and perspirations. She consulted an eminent French physician, who ordered her to be bled 10 oz. A slight improvement followed, but the same symptoms soon returned, which were again interpreted as signs of plethora, and other 10 oz. were withdrawn from the arm. This second bleeding made the patient worse; and when I saw her, the marked ill effects of the treatment made me think that it might have been injudicious, although I had not then paid particular attention to diseases of the c. of life. Not being able to explain the pains in the head, the flushes, and perspirations by plethora, I thought the nervous constitution

of the patient might in some measure account for them, and I gave anodynes and mild purgatives, advising a more strengthening diet. The patient rapidly improved, and in subsequent relapses derived benefit from the same kind of treatment.

CASE 11.—In 1850, I was consulted by a lady, aged 53, of middle stature, sanguine complexion, brown hair, and hazel eyes. She menstruated abundantly for the first time in her 13th year, and she has since been regular, the discharge being usually abundant. While the function was ceasing, she was twice seized with flooding, and felt better in health afterwards. Menstruation ceased at 51, and was soon followed by diarrhœa, which came on at irregular intervals, but did not interfere with the appetite and strength of the patient. When that supplementary discharge subsided, heaviness of the head, with giddiness, came on, together with flushes of heat and drenching perspirations. For these distressing symptoms she had consulted several medical men, and had taken large doses of quinine, acetate of lead, and gallic acid, but without benefit. I ordered her to be bled 12 oz., and the vertigo, flushes, and perspirations abated considerably. The bowels were to be kept open by Seidlitz powders; several glasses of effervescing lemonade to be taken in the course of the day, and a tepid bath for an hour every week. Meat once a day, no beer nor porter, one glass of sherry at dinner, and more exercise to be taken in the open air. In a month all the painful symptoms had disappeared, and the patient remained well for several subsequent months, when, without any apparent cause, the same symptoms broke out again. I ordered 8 oz. of blood to be withdrawn, and prescribed the former treatment, with similar good effect; and I should do so again—diminishing as much as possible the quantity of blood to be withdrawn—if a neglect of the prescribed diet, or some unforeseen nervous excitement, should bring on a relapse.

The symptoms experienced by both these patients were similar, but their constitutions were very different. The first

shows that, when nervous people are bled to excess, there arises a state which often closely resembles the threatenings of disease in the vital organs, relieved in other temperaments by bleeding. In the last case the patient was of a strong constitution, accustomed to lose considerable quantities of blood, and relieved by the occurrence. The vigour of the circulation was well proved, by the strong impulse of both heart and pulse, instead of the flaccid condition of both in the first patient. The one was relieved by sedatives and a strengthening diet, the other principally by bleeding; and I have seen bleeding remove these symptoms when it was not indicated by a strong constitution, but by the previously-contracted habit of losing a considerable quantity of blood; as in women of a slender make and slight delicate appearance, and in those whose nervous susceptibility is great, in whom, as I have previously shown, we must admit an hæmorrhagic diathesis.

If the utility of venesection is proved in cases similar to the one last related, in which, in these days, its employment would be scarcely thought of, it is reasonable to believe that the same means, combined with other remedial measures, should be resorted to, when the temporary plethora produced by the c. of life has given rise to inflammatory affections of the womb, or of the other organs.

Practitioners of olden time asserted that the effects of bleeding are very different if the blood be drawn from the arm or from the saphenous vein; such distinctions are now looked upon as hair-drawn; but, it must be remembered that, owing to the discontinuance of bleeding, the medical men of the present day cannot bring the question to the test of experience. It was formerly the custom to draw blood from the vena saphena, in cases of suppressed menstruation during the active periods of woman's life, and the precept may be still followed; but at the c. of life and after cessation, blood should be taken from the arm, for it is undesirable to encourage the tendency of blood to the pelvis; one should rather seek to diminish the

liability to congestion of the abdominal organs. At first, sufficient blood should be taken away to make a decided impression on the system. Nature frequently adopts this plan, for 138 women out of 500 were flooded at the c. of life. The effects of the bleeding should be aided by judicious regimen; for, doubtless, the necessity for bleeding, even plethoric women, would be considerably diminished, if it were not so difficult to persuade them to break through accustomed habits, and if they would consent, for a time, to diminish the quantity of their food, and refrain from what has been shown to be otherwise prejudicial to them. But the indication to bleed soon recurs in some women; it is then better to adopt a plan sanctioned by Tissot and Hufeland—to bleed in progressively smaller quantities, and at progressively longer intervals. Tissot mentions a case, in which it was necessary to bleed for 3 years, after which the patient recovered her health. Hufeland used to bleed three times in the first year after cessation, twice in the second year, and once in the third. I frequently follow the same plan, which is a daguerreotype of a natural process, for in 171 women out of 500, the m. flow ceased naturally, that is, by a gradual smaller amount of discharge, occurring irregularly every 2, 3, 4, 5, or 6 months. In one instance there was a slight show every 3 months for 2 years, and a similar case is recorded in the *Wurtemburg Correspondent*, of an unmarried woman in whom menstruation occurred regularly until her 50th year, from which, to her 74th, it occurred every 3 months in the quantity of 10 to 15 drops every time. In 53 cases out of my 500, there was a marked return of monthly phenomena after cessation. In such cases it might be judicious to bleed before the accustomed monthly occurrence.

LOCAL DEPLETION.—The effects of leeches are similar to those of general venesection; but while they subtract the best blood contained in the capillary system, they cannot give that shock to the system produced by the sudden withdrawal of

blood from its containing vessels. When prejudice interferes with bleeding, a few leeches behind each ear, or cupping at the nape of the neck or between the shoulders, should be resorted to. If piles have formerly had a tendency to bleed, leeches may be applied to the anus; they will also be sometimes useful if there be inflammation of the womb, though I was surprised to find that Dr. Ashwell advocates bleeding the womb by leeches as the best mode of depletion at the c. of life, for leeches are generally applied to the womb so as to determine blood to that organ; to apply them, therefore, at this period, except under peculiar circumstances, is to seek to prolong what nature wants to curtail. To check the determination of blood to the womb is a culminating indication of treatment at the c. of life; and even in cases of uterine inflammation I seldom apply leeches, for I find that repeated small general bleedings are more effectual in checking the monthly turgescence of the womb which may take place long after cessation.

PURGATIVES.—Diarrhœa relieved 52 out of 500 women at the c. of life. These bear witness to the utility of purgatives, as well as the 37 who were subject to dyspepsia, the 23 who were troubled with obstinate constipation, the 55 in whom biliousness was a prominent ailment, and the 6 who had jaundice once or more frequently. The utility of purgatives at cessation is further shown by the very intimate relation which I have proved* to exist between the generative and intestinal canals, and which is indicated by the relaxation of bowels which generally attends the m. flow. Purgatives constitute one of the most convenient local depletions by which the system can be habitually relieved; their employment, therefore, at this stage of the m. function, fully deserves the confidence which the profession has long accorded to the

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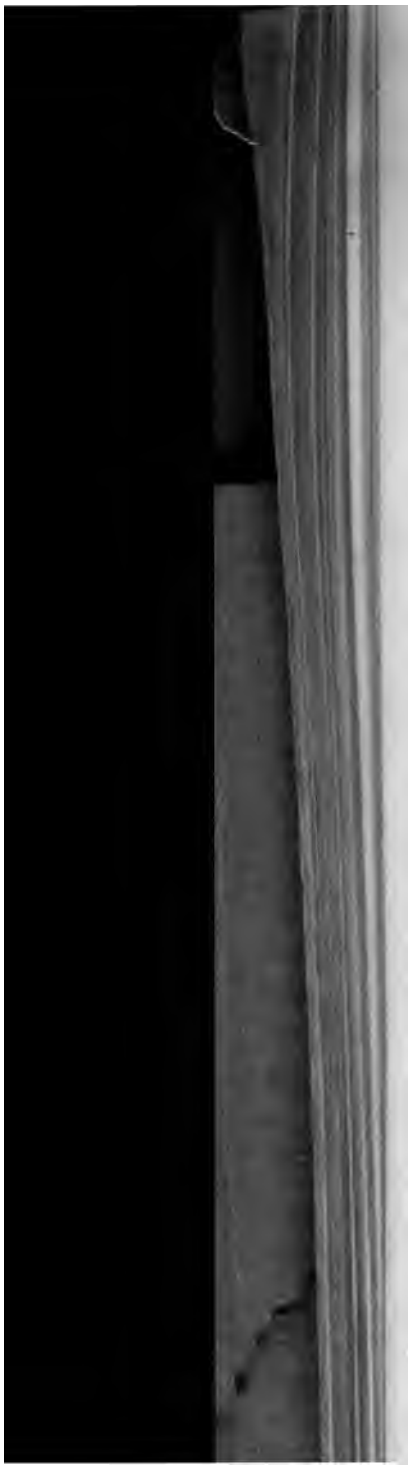
* *Vide* "London Journal of Medicine," August, 1851:—Paper on Catamenial Diarrhœa, by the Author. Also, "Diseases of Women," Second Edition, p. 125.



practice, and the sanction which Fothe
indeed the utility of purgatives has beco
of popular, as well as of medical belief, t
medical attendant too often confide in
neglect of bleeding and of other importa

I might give numerous cases in pr
diarrhœa, but I will merely state the fol

CASE 12.—Catherine M., aged 53,
hair, grey eyes, and pallid complexion,
but for the last 35 years has resided in
struated very abundantly at between 1
was regular from the first, and continue
every 3 or 4 weeks, with so little suffe
felt them come nor go." She married
times, and bore 5 children, the last at 4
which had been irregular a year previou
returned after that event. The patient
during the m. epochs. During her last
her confinement, she frequently had 3 o
out pain or loss of appetite, and since the
on every 3 or 4 months, with intermitte
ing perspirations. For the last 12 m
relieved 6 or 7 times a day, until lately
been so once in 2 days, and has ever sin
wind, nausea, oppression at the pit of th
of appetite, though her tongue is perfec
When the action of the bowels became
better.

When diarrhœa occurs at the c. of life, i
irregular intervals; it may, however, occ
of the m. function, as in the instance of a
in whom, at the accustomed time, diarrho
patient had usually found to be the foreru
The former lasted 3 days, and gave relie
followed by the sanguinoid flow then,

thus every month for a whole year diarrhœa came to the patient's relief. I lately met with a case where there had never been any premonitory diarrhœa; nevertheless, the cessation of menstruation was for 5 years followed by an habitual looseness of bowels, occurring 2 or 3 times a day, generally without colics. The patient enjoyed good health during that time, and is now a stout and tolerably healthy woman. Dr. Day notices the salutary effects of diarrhœa, consisting of watery evacuations, taking place without apparent cause every 3 or 4 months after the cessation of menstruation; and he mentions the case of a lady 87 years of age, in whom for the last 30 years this had occurred with great advantage. Although nature occasionally brings on flooding, it would be wrong to risk the possible dangers of its induction by the exhibition of energetic purgatives just before the m. epoch, for they might increase the flow which nature seeks to diminish. It is more prudent to prescribe the frequent use of the milder opening medicines, which may diminish by degrees abdominal plethora, the more so as it may be many months before the constitution can settle down.

The cooling saline purgatives serve this purpose, such as the soluble cream of tartar, cream of tartar lemonade, Seidlitz powders, artificial Cheltenham salts, Epsom salts in small quantities, &c.

I frequently prescribe the soap and aloes pill of the E. Pharmacopœia, ordering 5 or 10 grains to be taken with the first mouthful of food at dinner. Kemp and Hufeland recommend the following powder to be given to those who are advanced in years, and who complain of a tendency to vertigo: Guaiacum resin, cream of tartar, of each half a drachm, to be taken at night. This, no doubt, will sometimes be found a useful laxative; so will the popular remedy called the Chelsea Pensioner, of which Dr. Paris has given the following formula in his excellent Pharmacologia: Of guaiacum resin, one drachm; of powdered rhubarb, two drachms; of cream of

tartar and of flower of sulphur, an ounce of each; one nutmeg finely powdered, and the whole made into an electuary with one pound of clarified honey: a large spoonful to be taken at night. Sometimes I administer the flower of sulphur alone, or else to each ounce of it I add 4 drachms of calcined magnesia; at others, I prescribe equal parts of borax and sulphur, 1 to 2 scruples of these powders to be taken at night in a little milk, which generally acts mildly: and such combinations are very valuable when a continued action is required. Thus taken in small quantities, and now and then left off, I have not heard sulphur objected to by patients on account of its determining any peculiar smell, neither when given alone have I found it cause fever, as stated by Dr. A. T. Thomson.

Sulphur is generally classed amongst purgative remedies, because such is its visible action; but it owes its chief value, in diseases of cessation, to another action, much more difficult to understand, and which has long rendered it so valuable both in hæmorrhoidal affections, where there is an undue activity of the intestinal capillaries, and in skin diseases marked by a morbid activity of the cutaneous capillaries. Whether sulphur cures by acting on the nerves or on the blood-vessels, or by modifying the composition of the blood itself, is difficult to tell, but it forms part of many popular remedies for the diseases of old age, and is lauded in works on those diseases; but its utility is not sufficiently known in all derangements of the m. function, at whatever period of life they may occur, and particularly at the c. of life, when, if required, its administration may be continued with impunity for months and years.

ALKALIES AND DIURETICS. — In healthy women, the monthly ovarian crisis generally produces *critical* deposits in the urine. Most women remark their water to be muddy a day or two before or during the m. flow. During the dodging time and after cessation, this turbid state was noticed in 49 out of my 500 cases to last for weeks, then disappear to

return. This is sufficient to indicate the utility of alkaline preparations. Their utility will be likewise apparent in the 37 cases of dyspepsia, the 31 of vomiting, the 5 of water-brash, the 55 of biliousness, and the 6 of jaundice. M. Mialhe has proved that alkalies possess, in a high degree, the property of liquifying the serum of the blood, and of thus diminishing its plasticity. Bicarbonate of soda has been given to diminish the tendency to plethora, and in this case practice is justified by theory. Dr. Parkes has shown by his patient investigation of the action of liquor potassæ on healthy subjects, that it varies, according to whether it be taken before or after meals. If taken after meals, the liquor potassæ acts as an antacid. It combines with the hydrochloric or lactic acid, and passes into the circulation without increasing the water, the solids, or the sulphuric acid of the urine. If liquor potassæ and other alkaline preparations, when given soon after meals, do not appear in the urine, we may conclude that they improve digestion and the crasis of the blood. Dr. Parkes and Dr. K. Chambers have shown that, when liquor potassæ is taken before meals, it has the power of reducing *embonpoint*. From 30 to 90 minutes after the liquor potassæ has entered the circulation, there is an increased flow of slightly acid urine, which contains the whole of the potash and organic matter differing from that of ordinary urine, and a relatively large proportion of sulphuric acid. In other words, an albuminous compound either in the blood itself or in the textures becomes oxidized; its sulphur, under the form of sulphuric acid, unites with the potash, and possibly with the changed protein compound, and is eliminated by the kidneys. The amount of albumen or fibrine thus destroyed by a few doses of liquor potassæ is doubtless small, but as the remedy can be taken for a considerable time, and its oxidizing effects can be assisted by exercise and by copious draughts of water, there is a possibility of removing superfluous matter from a patient without

risk. Dr. Shearman has lately drawn attention to some of the forms of ganglionic disease, to be carefully treated of hereafter, and which he considers dependent on neuralgia of the vagus nerve, connected with saccharine urine. Although our pathological views are somewhat different, our practice is similar, for Dr. Shearman places as much confidence as myself in alkalies, for the affections alluded to; he gives ʒi doses of liquor potassæ to determine an alkaline condition of the blood, to reduce the sugar in the urine, and bring it back to its normal state of acidity. In all diseases of cessation, alkaline medicines are required as antacids and blood improvers; and with that view I generally order a tablespoonful of a 6 oz. mixture, containing, amongst other ingredients, 2 drachms of liquor potassæ, to be taken half an hour before meals; and immediately after meals, from 10 to 20 drops of liquor potassæ in a wine-glass of water, or a scruple of bicarbonate of soda in a mouthful of the same fluid. I have often continued this plan for weeks and months with occasional intermissions, the patients frequently returning to it of their own accord, because they find they cannot get on comfortably without it. As a blood improver, I frequently give the biborate of soda in small quantities, associating it with sulphur, when the patient has to take it at night, or with cherry laurel-water; 1 drachm of the salt to a 6 oz. mixture, when it is ordered 3 times a day. I think this salt has a calming action on the blood, like that which is attributed by many to nitrate of potash given in small quantities,—a plan also frequently useful. The saline diuretics are the nitrate of potash and the acetate of potash; these cannot, however, be left, like the antacids, to the patient's discretion, but must be watched by the medical adviser, and are very useful, not only when the urine continues to deposit, but when the patient suffers from flushes and perspirations, as they divert to the kidneys part of the saline particles which would otherwise be directed to the skin. Some women who became very stout after cessation, and who derived little

benefit from measures advised to relieve the sweats and nervous symptoms of this period, rapidly improved, when, by large doses of liquor potassæ, they had been disencumbered of a superabundant amount of fat.

SEDATIVES.—The 277 women out of 500 who suffered from pseudo-narcotism, the 226 who were troubled with dorsal pains, the 205 distressed by hypogastric pains, the 208 subject to headaches, the 146 presenting the minor forms of hysteria, the 49 distressed by epigastric pains, the 16 in whom insanity occurred, and many others who suffered from less frequent nervous affections, are all witnesses to the efficacy of sedative medicines, in relieving the many forms of nervousness to be anticipated at the c. of life. Sedatives are frequently given as *placebos*, to lull some nervous symptom; and if they are not given more systematically, it is the fault of patients, who, when once the distressing symptom has been allayed, will not submit to systematic treatment, unless it be despotically imposed by some bold-faced charlatan. The utility to be derived from sedatives has been so admirably pointed out by one who has thrown considerable light on the difficult study of diseases of old age, that I avail myself of Sir H. Holland's remarks:—

"The manner of employing opium in modern practice might, until very lately, be cited among the many examples of perverse changes of fashion as to particular remedies and methods of treatment. The fear of confining the bowels and checking the secretions, constantly present to the mind of the practitioner, readily imbued the patient with the same alarm; and thus far prevented the adequate use of a medicine having power of mitigating pain, of relieving spasm, of procuring sleep, of producing perspiration, and occasionally even of aiding the natural action of the bowels, by obviating the disordered actions which interfere with it. I speak of this as having been, because it is certain that opiates are again more largely employed, since the introduction of morphia as a

common preparation has furnished new methods of administering the remedy, and revived attention to the principles of its action. Yet even now it may be affirmed that there exists a distrust, both as to the frequency and extent of its use, not warranted by facts, and injurious in various ways to our success in the treatment of disease. This is the more singular, seeing the boldness of our practice in other points, that we have in the sleep produced a sort of limit and safeguard to its effects, and that we possess remedies of easy application for all injurious symptoms that can arise. To the insufficiency, indeed, of the quantities given, may be attributed, in some part, the comparative disregard into which the remedy fell during a certain period. Half a dose might disturb and distress the night which a full dose would have made one of perfect rest, or perplex the aspect of symptoms which a larger quantity would have alleviated or removed.

"Yet medical experience does but follow common observation in recognising the inestimable value of sleep in sickness, of the suspension of pain, and the check to all disordered actions thereby obtained. For pain and sleeplessness, though strictly but symptoms of other ailment, may often, in practice, be viewed as disorders in themselves, the removal of which is essential to the success of our general treatment. How frequently do we see a nervous restlessness come over the patient, the consequence of protracted sickness or other causes, retarding cure by preventing the due effect of remedies, and receiving no relief itself from the means employed for the disease? In such cases, the physician is not to submit himself to names or technicalities. The regular course of treatment must be suspended until the hindrance is removed; and even seeming contradictions to this course may safely be admitted for the attainment of the object. Here opium is the most certain and powerful of the aids we possess; and its use is not to be measured timidly by tables of doses, but by fulfilment of the purpose for which it is given. A repetition

of small quantities will often fail, which, concentrated into a single dose, would safely effect all we require."

These remarks are in every way applicable to diseases of the c. of life; for at that time, more than at any other, the system frequently requires only to be freed from present pain, to enable it to return at once to the regular performance of its various functions. Sedatives, by assuaging the acuteness of pain, lull excited action to a slower rate of progress, and to a more subdued tone, for the blood-vessels serve under the immediate rule of the accompanying nerves; and sedatives, by restraining the heart's action, diminish the momentum of the blood.

I have another motive for giving sedatives at the c. of life which I submit, with diffidence, to the profession. During a prolonged tour in Egypt, Syria, and Turkey, the greater frequency of impotence amongst men in the East than in Europe, was often a matter of conversation with many intelligent medical men practising there. This impotence, in comparatively young men, is always attributed to great abuse of the sexual gratifications; but if it be more observable in Constantinople and Cairo than in Paris and Vienna, I attribute the fact, not so much to immoral practices, equally frequent in all large towns, but to the constant use of opium and haschisch, which have a decided anaphrodisiac action. The principal source of cerebral disturbance at the c. of life is, the irregular stimulus of the reproductive organs, which are no longer relieved by a regular critical discharge; I therefore deem that, in many cases, the systematic use of camphor, lupulin, hyoscyamus, and opium are required. Many of my patients were driven to the verge of insanity by ovario-uterine excitement; and in proportion as it was assuaged by the systematic exhibition of sedatives, cerebral disturbance abated. Those who would be most benefited by sedatives are the nervous and chlorotic, in whom there is often action without power—action requiring to be restrained until the

system has gathered strength; and as the tolerance remedy is generally in direct proportion to the possibili its being required, it will be found that the thin, weak nervous are most sensitive to the action of sedatives, and be brought to tolerate the largest doses. Those of the thoric type bear the solanaceous sedatives better than op unless this be given with ipecacuanha and purgatives; calomel or blue pill should be combined with the seda given to women of a bilious nature. These observa apply to sedatives *internally* exhibited; but, as some their poisonous effects are felt before the local suffering appeased, their *external* application may also be require complete relief. As the sedulous and intelligent applic of external remedies is not sufficiently resorted to, I support my estimation of their utility by quoting again Sir H. Holland, who observes that, "where true inflamm has not existed or has been removed, and where irritati nervous sympathies are the sources of the distress th attached to the spine and limbs, it is singular what good be effected by opium, externally applied—not, howeve the careless and inefficient way which is common with ternal remedies, but sedulously, and with a sufficient pr tion of opium in the forms employed."

Sedatives may be frequently used in lotions or ointm carefully rubbed in, or in poultices; the active substance l sprinkled over or incorporated with an ordinary linseed- poultice; but as the natural idleness of patients prevents working heartily at the recovery of health, and their giving attention and time to rubbing in medicines, I frequently large, soft, and well-made belladonna and opium plasters, used in rotation, a fresh one to be substituted every In the action of plasters, besides the substance absorbed local heat engendered is to be taken into consideratio well as the increase of perspiration; and perhaps, also, alteration in the electrical status of the skin. The pain

anomalous sensations of the pit of the stomach, which play so important a part in the nervous affections of women, are susceptible of being abated and removed by the application of sedative plasters to the epigastric region; and, in some cases, relief can be obtained by no other means. The exhibition of sedatives by the rectum is another invaluable mode of giving them at the c. of life. It is doubtless right to avoid as much as possible any measures repugnant to female delicacy, but this must not be allowed to interfere with the patient's cure, and the reproductive system is so intimately connected with the lower part of the bowel by nerves, blood-vessels, and cellular tissue, that the easiest way of acting on it is by the rectum, the more so as its mucous membrane is capable of so much greater power of absorption than the skin. Suppose a patient suffering habitually from nervous uterine irritability, from bearing-down pains, vesical tenesmus, and severe pains in the sacrum and thighs—putting inflammation out of the question, the necessity for sedatives will strike every one. Most medical men will give them by the mouth, either in such moderate doses that the patient's sufferings will be long in abating, or should the quantity have been sufficient to assuage the pain, the drugs may have acted so strongly on the system that it would take some days to recover from their poisonous effects. Afraid of this, others would apply sedatives to the pelvic regions or the loins, but before relief could be given much time must elapse; though, if the fomentations had been associated with sedative injections into the rectum, relief would soon be afforded without any subsequent ill effects, because the remedy being applied directly to the diseased nerve, the dose could be proportioned to the intensity of the pain. Is it not then better to give sedatives by the rectum than to leave a patient in an habitual state of suffering, or with the occasional variation of an overdose of opium? This is applying the right remedy to the right place, or *applying the sedative as near as possible to the suffering nerves.* If

this applied only to cases of lumbo-abdominal neuralgia connected with uterine irritation, their frequency at the c. of life would justify my dwelling on the subject; but in other cases, where there are no abdominal or lumbar pains, I frequently order sedatives by the rectum, with the greatest benefit. In nervous irritability, where there is a great tendency to headache, delirium, pseudo-narcotism, or any state approximating to insanity, they are most useful; and for this reason, that all those distressing conditions of the mind at the c. of life do not depend upon idiopathic cerebral disease, but on the perverse reaction, on the brain, of some anomalous ovarian influence transmitted through the ganglionic nerves. Believing in the anaphrodisiac effects of sedatives when given internally, I consider that they act in the same way, but with greater intensity, when given by the rectum; and that, by assuaging the pain and irritation of the reproductive system, sedatives, thus given, allay the disturbed action of the ganglionic nerves, and thereby cure cerebral affections. This mode of administering medicines was known to the ancients, for, in cataphora, Aretæus gave castor by the rectum. For internal exhibition, I sometimes give minute or large doses of the morphia salts, though I generally prefer the comp. ipecac. powder, or 20 minims of the L. Pharmacopœia solution of acet. of morphia, with 20 minims of ipecac. wine, which is equivalent to 10 grains of Dover's powder. Laudanum or vini opii are good for fomentations, and 30 or 40 drops of either may be sprinkled on a poultice or on flannel wrung out of hot water. By the rectum I generally give Battley's solution, as in the following prescription:—

Battley's solution	ʒi.
Tincture of hyoscyamus	ʒi.
Spring water	ʒiii.

Half an ounce of this lotion contains ℈i of Battley's solu-

tion, and ʒi. of tinc. hyoscyamus; and I order this, or double the quantity, to be put into a 2-ounce India-rubber bottle. This the patient fills up with warm milk, and after screwing on the canula, and anointing it with a little cold cream, it should be gently pushed up the bowel. When this is done, the firm pressure of the bottle by the hand will empty its contents into the bowel; the bottle should then be withdrawn; the mild nature of the fluid, and its small bulk, almost always allow of its being retained. The salts of morphia may be advantageously applied on some portion of the skin from which the epidermis has been removed. I have often done this, with advantage, to the pit of the stomach, when it was the seat of pain, or of peculiarly annoying sensations. Those who affirm that opium alone will not allay the nervous affections of the c. of life, admit its utility when combined with assafœtida, castor, and other remedies.

To relieve the slight cerebral symptoms, which, though removed, so frequently return, I give hyoscyamus, the mild action of which permits its being long taken without producing cerebral disturbance or constipation; it is, moreover, an admirable remedy to soothe nervous irritability; and I often give 2 gr. doses of the ext. with 3 grs. of blue pill every other night, or the tincture in the form of a mixture composed of a solution of potash and tincture of cardamoms, of each 4 drachms, with 6 drachms of the tincture of hyoscyamus in 6 oz. of camphor mixture; a table-spoonful to be taken alone, or with a little water, 10 minutes before every meal, and on going to bed. The proportions of the ingredients may be varied according to circumstances, but many practitioners have expressed their approbation of this prescription. At the public institutions to which I am attached, I am very frequently asked for "some more of the same stuff which did them so much good before." Hyoscyamus is an invaluable remedy in the treatment of diseases of women, whether given

according to the preceding formula, as an extract in pills, or as a topic in plaster. No sedative has so soothing, so harmless an action on the nervous system of women.

The extract of conium has been likewise much resorted to at various epochs; and, when properly prepared, it is very useful given in pills alone, or combined with the blue pill.

BELLADONNA is seldom used except externally; the dread of the singular hallucinations which it produces, when taken in poisonous doses, has prevented the internal use of a valuable drug. A knowledge of the beneficial results obtained in many nervous affections from its use by Dr. Debreyne, ever since 1815, led me to employ it for similar complaints at the c. of life. I give pills made with one grain of the pure ext. alone, or associated with whatever remedy may be indicated; increasing the number of pills from 1 to 3, and continuing at that number for a few days, unless the eyesight becomes disagreeably affected, or other symptoms of intoxication should indicate the urgency of leaving off the pills, which may be resumed again after a few days' interval. Sometimes I add the tincture of belladonna to cherry-laurel water, so that 5 to 10 drops of the tincture may be taken twice a day. From 15 to 25 drops of the tincture, with a similar quantity of Battley's solution, will also be useful as a rectal injection. For external use I give the following ointment:—

Fresh ext. of belladonna	15 drachms.
Ext. opium	2
Prepared lard	15
Essential oil of lavender.	6 drops.

I also frequently use the belladonna plasters. It is indispensable, for the action of the ext. of belladonna, that it should be fresh and carefully prepared. Mr. Taylor, of 13, Baker-street, Portman-square, prepares it for me; but any druggist can do so, if he will take the trouble.

CAMPHOR is a remedy which defies the influence of fashion.

It is related in an article on the burning of widows—*Quarterly Review*, Sept. 1851—that "the messenger found the Brahmin plying her with camphor, so that he was wholly unable to overcome the exultation which she exhibited." The fact proves the knowledge of some of the properties of this drug by a people now, in many points, as they were found by Alexander the Great. Dr. Physick says, that "camphor was made for women, with whom it always agrees, while it always disagrees with men." This is an exaggeration, for I have met with women with whom it has disagreed, and it often agrees with men. The subtle fumes of camphor seem to spread like an aura over the nervous system, stimulating it to increased action, causing the capillaries to eliminate with the perspiration, whatever oppressed the nerves, whether it be a liquid, gaseous, or an electroid fluid with which they are overcharged. The effect of this is a subsidence of pain, an increase of strength, and sometimes a sensation of lightness, the patient feeling as if she could fly. Camphor seems to correct the toxic influence which the reproductive system has on the brain of some women; its anaphrodisiac properties have been often shown in priapism and nymphomania. It abates the sexual sting by acting on the cerebro-spinal nerves of the external organs of generation, not on the testicle or ovary. The testimony of Raspail on this point is of great value, and he says, that habitual large doses did not prevent conception nor induce impotence. Camphor may therefore be useful in appeasing the excitement of the external organs of generation at the c. of life. It is, however, usually given in ineffectual doses. Dumas, who practised at Montpellier in the beginning of this century, and who has written a good book on *Chronic Nervous Affections*, gave—he does not mention how—100 grs. in the course of a day. Raspail gave from 5 to 10 grs. in a wine-glass of water, with or without a few drops of ether; I give it in this way, or prescribe Sir J. Murray's fluid camphor. For external application, there is the cam-

phorated oil, made with 1 drachm of camphor to 1 oz. of oil; the camphorated ointment, made with 2 drachms of camphor to 1 oz. of lard; and the camphorated vinegar, made by dissolving 1 oz. of camphor in a pint of vinegar, which is useful, when diluted with water, to apply to the head in headaches, or to the skin in its various affections.

Raspail's sedative lotion is an excellent formula:—

Aromatic spirits of ammonia	2 oz.
Camphorated spirits of wine	3 drms.
Common salt	2 oz.
Water	2 lb.

The salt is to be dissolved in the water, filtered, and the solution mixed with the other ingredients, which should be previously combined, and the lotion should be kept in an air-tight bottle.

This lotion may be applied with a small sponge, or a pad of soft linen may be soaked in it, and applied to the painful part, renewing it as often as may be required. If the lotion irritates the skin too much, water may be added. This is an invaluable application in all the cerebral affections of the c. of life.

What is now known as soluble camphor, or 3 parts of camphor dissolved in 1 of chloroform, is a good external remedy for pain circumscribed in a small spot. A drachm or two of powdered camphor may be sprinkled on a linseed-meal poultice before its application; if coarsely powdered and folded in cotton wool, it may be worn as a sacket at the pit of the stomach. It may be sprinkled on a belladonna or other plaster, and then applied where judged necessary. After a full injection of tepid water has been retained from the rectum, 3 or 4 ounces of camphor water may be injected twice a day, and camphor, incorporated with violet powder, may be freely used to relieve pudendal irritation and flushes, when dry and annoying. The forms are given in the chapter on cutaneous affections.

CHERRY-LAUREL WATER, as sold in Italy, is so strong that a moderate dose has sometimes caused fatal accidents. As it is usually sold in England it deserves little confidence, being seldom genuine. Of what is sold in Paris, an ounce might be given to an adult twice a day. It is a useful and agreeable medicine, but I seldom order it, for fear some preparation of bitter almonds should be substituted.

LUPULIN.—I have long been in the habit of adding 6 drachms of the tincture of lupulin to a 6 oz. mixture; and I am confirmed in my opinion of this drug by what has been lately stated by German and French practitioners, who have found that when from 2 to 16 scruple doses of the yellow lupulin were given, they effectually quelled the erection of chordee. If these results are confirmed, it would certainly show á strong anaphrodisiac action, and justify its use in diseases of the c. of life.

CASTOR.—This is an old remedy, which I have often found useful; I add the tincture to my ordinary mixture. The compound tincture of the Edinburgh Pharmacopœia is a very good formula.

AMBERGRIS.—This drug is extensively used by perfumers, and it is mixed with the haschish by rich Turks. Brillat de Savarin's eulogium of its effects made me try it. I give ten to twenty drops in a 6 ounce mixture, and it is certainly a reviver of nervous force; I now habitually give it at the Farringdon Dispensary in the following form, of which one or two table-spoonfuls are taken three times a day:—

Tincture of hyoscyamus	ʒiv
Tincture of catechu	ʒiii
Potash water	ʒii
Essence of ambergris	mxv
Camphor mixture, ad	ʒx

All that I have said in praise of sedatives will be fully confirmed when nervous affections come under consideration; at

present I can only repeat a hope expressed in a first edition, that sedatives may be more systematically used at the c. of life than is now the case, so as to withstand the over-exciting effects of the present civilization on the nervous system by deadening the reproductive stimulus, which only lingers on to disturb health, in order to arrest in its bud the tendency to mental derangement.

SUDORIFICS.—In some countries the polite question on meeting a friend is not, "How do you do?" but "How do you perspire?" This might apply to women at the c. of life, for the 201 out of 500 who had continual perspirations, and the 84 who were for a long time repeatedly sweated, show the utility of sudorifics. Indeed, for one woman who is for a time relieved by a critical exhalation of blood from the womb, 20 or more derive permanent benefit from long-continued critical cutaneous exhalations, so I wonder that the utility of perspirations, and the advantages to be derived from sudorifics, have not been more insisted on, especially as their action is exerted on an immense surface, and followed by the exhalation of a large quantity of water, salts, and animal matter. That the perspirations of this period have not passed quite unnoticed is evident from Siebold mentioning a case of sudden cessation, followed by abundant perspiration. Tissot also alludes to the fact, that when intermittents were frequent, he sometimes saw menstruation finish by an intermittent fever, which, by greatly augmenting the perspirations, relieved the patient of the other infirmities which so often attend this critical change. For proof of the utility of perspirations in many affections at the c. of life, I refer to many cases in this work. Siebold's case, however, reminds me of Emma S., aged 55. The m. flow left suddenly at 40; since then she has never suffered, but had constant, gentle perspirations. Eliza S., aged 52, lost the m. flow suddenly at 42, in consequence of bleeding being performed during a m. period; since then, she has had constant, gentle perspirations, but no suffering.

Whenever women suffer more than usual from distressing sensations, referred to the pit of the stomach, and from a considerable amount of cerebral disturbance, it will frequently be ascertained that the skin has a tendency to be dry. There may be "dry flushes," but the skin is not relieved by free perspiration. In such cases, profuse perspiration, whether an effort of nature, or the effect of medicine, brings speedy relief. To induce perspiration, I sometimes begin with an emetic; a large table-spoonful of acetate of ammonia given repeatedly, the patient being in bed, is often useful: when there is no tendency to cerebral congestion, I have, in some cases, given vapour baths, though I generally prefer the more permanent, gentle perspirations, brought on by a cooling regimen, by warm baths and sulphur, of which I give 1 or 2 scruples once or twice a day.

BATHS.—The 287 women who suffered much from repeated flushes, the 84 who were habitually sweated, and the 42 who presented various cutaneous affections, bear witness to the utility of baths. A warm bath is a very simple thing, but it acts in many ways. 1. It removes from the skin the saline deposits and other secretions left there by continued perspiration. 2. The veins can thereby, through the skin, absorb a certain amount of water to cool cutaneous irritation and dilute the blood. 3. The warm bath is a gigantic poultice, applying its warmth to all the peripheric expansions of the nervous systems. In some hidden way the warm bath is a positive absorbent of the nervous irritability and a sedative to the nervous system; and when it is considered that it is not only a gigantic poultice, but one which is perfectly manageable—that the temperature may be increased or lowered according to the patient's feelings and the practitioner's discrimination; that while the patient is in tepid water, cold applications may be made to the head, and a stream of cold water directed to the abdomen through a vulcanized India-rubber tube, so as to quell local congestion, it is not surprising that the greatest men have, at various times, vaunted the utility to be derived

from baths in nervous affections. Notwithstanding the late sanitary movement, and the establishment of public baths, the popular mind in England is averse to bathing. There are thousands who never take a bath, and for those who do bathe it is often only a hop, skip, and a jump. Alluding to an hysterical patient, Pomme says, "It is so difficult to conquer prejudice, that I could scarcely persuade her to remain 10 hours in the bath every day." What would he have thought of patients who stare when they are told to stop one hour in it, and who ask "if baths are not very weakening?" The strength of popular prejudice reacts on medical practice, and makes the profession forget the advantages of prolonged bathing for nervous affections. Hippocrates says, "*Melancolici in tantum curantur, in quantum balneantur.*" Galen, Aretæus, Cœlius Aurelianus, and Celsus order hypochondriacs to drink cold water, and use fomentations and tepid baths. Hoffman and Baglivi admit that hypochondriacal affections are best cured by the continued use of tepid baths. Sanctorius has the following axiom:—"*Hypochondriaci, si frequentibus balneis eorum corpora reddantur perspirabilia, et victu humido utantur, sani fiant.*" Pomme owed his reputation to the sagacious manner in which he used water as a medicinal agent, both internally and externally. He generally made his patients stop in the water 3 or 4 hours a day; and 10, or even 16, in very severe nervous affections. If the plan were not really beneficial, it would not have been recently revived and adopted under a modified form in the lunatic asylums of France.

When I wish to obtain the sedative effects of baths, I direct the patient to take them heated to about 93°, and to remain in 2, 3, or 4 hours, having warm water added at times so as to maintain a grateful temperature. A greater sedative effect will be obtained by letting the water gradually cool down to 90°, or even lower, and the amount of water absorbed will be proportionate to the low temperature of the bath. It

stands to reason that, when cold-water irrigations are applied to the womb, or to the hypogastric region while the patient is in the bath, there should be convenient means of emptying as well as of replenishing it. Thus given, the bath is a powerful agent, and its exhibition should not be left to the patient alone, or to a nurse, but the practitioner should see her just before she enters, and a few minutes after she leaves it, so as to judge of its effects. There are few patients in whom baths are not serviceable, but their action is most decided in the thin. Hydropathy I do not think calculated to do good at the c. of life. Bathing in some mineral water is, however, often serviceable, as will be mentioned hereafter. On referring to the *Times* of June 30th, 1854, there will be found an account of an inquest held on the body of a man who took a bath at about 100, and died while in it of serous apoplexy. It was stated that there was no thermometer kept at the institution where this occurred, and that there had been 16 similar accidents in the previous year. This shows that no bath should be entered without its temperature having been ascertained by the thermometer, though even this is not always sufficient, for one of my patients, for whom I had ordered a bath at 92°, took it at one of the best conducted of the public baths, but after remaining in the water about three-quarters of an hour, he was surprised at finding it become hotter and hotter, and as soon as he was dressed he made the attendant test the heat, which was found to be above 100°. This occurred a second time in the same institution a few days after from some leak in a hot-water pipe. My patient, being in the prime of life, only suffered from headache for the rest of the day; but an apoplectic fit would have been of likely occurrence in an elderly person, as in many cases with which I am acquainted, and were caused by the patient's own imprudence. Public baths are admirable institutions, but their managers must be made aware of the accidents likely to occur from faulty or deficient machinery.

COUNTER-STIMULANTS.—Many neuralgic affections require counter-stimulants. A fixed pain is often relieved by dry cupping, by mustard poultices on alternate nights, and by friction with the well-known stimulating liniments. To the pit of the stomach I often apply pitch plasters and sometimes blisters; but I do not think the advantage derived from rubbing in tartar emetic ointment is equal to the annoyance it causes. Sir A. Carlisle, Drs. Corrigan and Day, Jobert de Lamballe, Mayor de Lausanne, Sedillot and Bouvier, have warmly praised the application of heat in the treatment of neuralgic affections, which are, for the most part, superficial. Valleix made heat the basis of his treatment of such complaints, and Dr. Day praises its use in neuralgic affections of the aged, while Dr. Mitchell, of Dublin, thus relieves the lumbo-dorsal and other fixed pains to which women are peculiarly liable. The manner of application is, by a piece of steel previously plunged in hot water or heated by a spirit lamp, being placed for a few seconds on the painful spot; the prolongation of its application and the number of points thus touched, will vary with the severity of the case. The pain it gives is slight, but the relief is often considerable.

ISSUES.—Those who practised in England long before the birth of the present generation, frequently applied issues and perpetual blisters to those suffering from chronic complaints. They thought that, by these means, they could eliminate from the blood certain constitutional impurities; considering that in such patients the system had acquired the habit, and therefore the want, of some permanent irritation, and that by establishing a sufficiently active superficial focus of irritation, it might cause blood currents to set in habitually towards the periphery, and thereby relieve the deep-seated centres of pathological irritation. This doctrine has been credited from the oldest times; it may be true, but issues have gone s much out of fashion, that, like myself, few medical men ar able to speak from experience upon a medication of doubtfu

benefit, and which is much opposed to popular prejudice. An esteemed authority, however, Dr. F. Churchill, agrees with Fothergill in the utility of applying issues and blisters to those who, in early life, have been relieved from cutaneous or other disorders by the establishment of the m. flow. He says, "I have repeatedly tried caustic issues, or perpetual blisters, and with the greatest advantage. They certainly aid the action of the remedies already mentioned, and, I think, prevent the recurrence of those irregular congestions which Dr. Fothergill has described." Gardanne and B. de Boismont likewise speak confidently on the utility of issues in preventing disease at the c. of life, but I agree with Dr. Ashwell that they are not often necessary, except when cutaneous eruptions are troublesome, and have been so in youth.

MINERAL WATERS.—Cold sea-bathing is out of the question at the c. of life. I have not advised warm sea-baths, but several patients have tried them without deriving benefit, while others have thought themselves worse for their use. Gardanne states, that the effects of mineral waters are rather disadvantageous than otherwise; but he does not say how or where they are taken, or under what condition of regimen. In other words, no attempt has been made to find what particular waters may be best suited to the varied types of women undergoing this change.

The baths of Aix en Savoie, combining varied medicated waters with good society and a country abounding in beautiful scenery, seem to me well adapted for the purpose. They are situated within a few hours' drive from Lyons, la Grande Chartreuse, Geneva, and the splendid scenery circling Mont Blanc; and as to the waters, the advantage I have attributed to the use of sulphur, alkalies, purgatives, and steel, shows that their chemical nature is such as to render them very useful at the c. of life. Sulphurous waters may be good, not only in cutaneous affections, but in many cases of congestion of the internal organs, and in anomalous epigastric neuralgia

Alkaline waters, like Vichy, are not overrated in cases of obstinate biliousness, dyspepsia, vomiting, and gout. Chalybeate waters are useful in chronic debility, chlorosis, and in the after part of the treatment of many of the gastro-intestinal affections. Hot springs may be made serviceable in the cure of rheumatic affections, lumbo-abdominal neuralgia, local paralysis, paraplegia, and, in general, all neuralgic affections. In giving mineral waters, it is better to be governed by what is known of the state of the system at the c. of life, than by the practice of the various watering-places, and to remember that patients will derive most benefit from mitigated doses, and from less energetic treatment than usually prevails at foreign establishments. It must always be borne in mind, that those of the plethoric type will be much worse for large quantities of sulphurous water, which may bring on flooding, if not cerebral congestion. It would be also imprudent to give them hot or vapour baths. At Aix en Savoie will be found very active mineral waters, which are called sulphureous; but they differ from others of the same name by the sulphydric acid being *free*, instead of combined with soda or any other base, so that if exposed to the air for a time there would remain a saline mineral water, which may be given in large quantities as a purgative; and until this effect is produced, the bilious are liable to be made more so by their use. The water of the spring called "*Soufre*," is very similar to that called "*Alun*," but the latter contains less sulphydric gas, and more carbonic acid. The temperature of both springs is very high, whereas the water of the ferruginous spring, called S. Simon, is cold. The following is an analysis of the waters of Aix les Bains:—

Analysis of the Mineral Waters of Aix en Savoie.

M. J. Bonjean, 1838.

Substances contained in the pound or 1000 grammes of water.	Soufre.	Alun.	S. Simon.
Azote	0,03204	0,08010	traces.
Carbonic acid, free	0,02578	0,01334	0,00338
Sulphydric acid, free	0,04140	,,	,,
Oxygen	,,	0,01840	,,
Carbonate of lime	0,14850	0,18100	0,00592
,, of magnesia	0,02587	0,01980	,,
,, of iron	0,00886	0,00936	0,00169
Sulphate of soda	0,09602	0,04240	,,
,, of alumina	0,05480	0,06200	,,
,, of magnesia	0,03527	0,03100	,,
,, of lime	0,01600	0,01500	0,00127
Hydrochlorate of soda	0,00798	0,01400	,,
,, of magnesia	0,01721	0,02200	,,
,, of lime	,,	,,	0,00127
Silica	0,00500	0,00430	,,
Phosphate of alumina ,, of lime Fluoride of calcium	0,00249	0,00260	,,
Glairine	a trace.	a trace.	,,
Apocrénic acid	,,	,,	a trace.
Loss	0,01200	0,00724	,,
Total	0,43000	0,41070	0,01353
Specific weight	100,010	100,025	100,027
Temperature	125° F.	135° F.	,,

The "Soufre," or "Alun" water, in small doses, acts as a sudorific; in large or long-continued doses they cause slight fever, and a cutaneous eruption, called "poussée." This critical phenomenon, so useful to obtain in many chronic disorders, would be objectionable in most affections at the c. of life, with the exception of cutaneous diseases, and some very exceptional cases.

Modes of exhibition.—I do not recommend more than 2 or 3 half tumblers to be taken before breakfast at intervals of a quarter of an hour, which should be employed in walking about. The bath should be taken before lunch, the mineral

water being at first diluted with two-thirds, and then with an equal quantity, of plain water. There are baths so contrived, that continued irrigation of the hot mineral water may be directed to rheumatic and paralytic limbs and to the foci of neuralgia. Hot and cold douches of varied pressure can be employed in similar cases. Hot and cold shower baths are better avoided, except in cases of nervous debility, in thin semi-chlorotic patients. In such cases it is well to give from 3 to 6 gentle alternate hot and cold sprinklings by the shower bath, and then a bath at 95°, allowing it to be left so soon as the water has cooled down to 90°. By a more liberal exhibition of the mineral waters internally, as well as of the shower baths, the system will often be relieved of any troublesome amount of fat with which it may be encumbered.

The St. Simon water is only to be drank; the spring is situated about 20 minutes' walk from the town, and 2 or 3 tumblers may be taken in the course of the day. I shall refer again more than once to these celebrated waters, much resorted to on the Continent, and fashionable even in the time of the Cæsars.

One observation applies to the treatment of all the diseases of this epoch—the necessity for time. Nature cannot work at a railway pace. A habit of 32 years cannot be interrupted without periods of hesitation, trial, and infirmity, previous to health being regained.

CHAPTER V.

GENERAL PRINCIPLES OF HYGIENE OF THE C. OF LIFE.

THE diseases of the c. of life are, in general, more tedious than dangerous, liable to relapses, and so much under the influence of hygiene that this deserves special notice. As at puberty, from the total ignorance in which it is thought right to leave young women, so at the c. of life, women often suffer, from ignorance of what is to occur, or from exaggerated notions of the perils that await them. It would be well if they were made to believe that, if in tolerable health, provided they will conform to judicious rules of hygiene, they have only blessings to expect from this critical period. The c. of life may be dangerous for those who are always ailing, for habitual sufferers at the m. periods, and for those affected with uterine diseases; indeed, according as the sufferings of women were protracted, previous to the healthy establishment of the periodical flow, so may they expect its cessation to be attended by a corresponding period and intensity of suffering. Women should know, that unless they be pregnant or nursing, great irregularities in the monthly appearance coinciding with sensations of sinking at the pit of the stomach, with flushes and perspirations—even though their age may only be between 30 and 40—may, in general, be considered as warnings of cessation, particularly if they are accompanied by a corresponding amount of pseudo-narcotism. This knowledge would prevent cessation being considered in the light of temporary suppression, and forcing medicines and purgatives being taken without the sanction of medical advice. If, on the first indication of the c. of life, women sought advice, carefully followed a

regimen, and pursued a line of life in harmony with the physiological processes on which this change depends, I believe that almost all disease would be prevented; but as it is the end of a natural function, it is thought right to leave it to Nature; no additional precautions are taken, and no advice is sought for, until the mischief is done. It will sometimes devolve on the medical man to explain to the patient's relatives, that the system may be, for a time, unhinged; that harsh treatment may aggravate the already too distressing symptoms; and that it would be cruel to consider as positive insanity, the strangeness of temper, the fitfulness of spirits, the perversion of character, which, after a few weeks or months of treatment, may considerably abate or entirely disappear. The temporary avoidance of those to whom an aversion may be held, following the instinct of the patient so far as frequenting society is concerned, encouraging any inclination for particular occupations, are all points of great importance. Manual labour cuts off the heart from its too engrossing objects of delight, even in cases of confirmed insanity; how useful, then, it must be in diminishing nervousness! I shall briefly give the principal rules of hygiene for the prevention of disease at the c. of life, referring them to the great functions of the human economy.

HYGIENE OF THE REPRODUCTIVE ORGANS.—I have shown that there is something more or less anomalous and morbid in the reproductive organs and their action on the system during the first half of the c. of life, and that in the latter part of this period these organs have a tendency to become atrophied. Can there be a clearer indication that they no longer require their hitherto appropriate stimulus? Hence it is unreasonable to marry during this period. Experience, moreover, teaches me, that even in those who have been long married, connexion at the c. of life has sometimes been a cause of uterine disorders, and that these have frequently occurred in women marrying during this epoch. Whether parturition is

then more dangerous, the Registrar-General's office does not afford the possibility of ascertaining; nor whether those who died of metria or in childbirth, from 40 to 50, had been recently married or not; but I believe marriage then increases the liability to flooding and to nervous disorders. Although marriage at this period is contrary to physiology, it appears from a table, p. 20, that in 1851, 982 spinsters and 2375 widows married from the 45th to the 55th year. Taking this as an average, it is worth while inquiring why 3357 English women every year do what seems injudicious. The plain, straightforward motive is often the worst way of interpreting the actions of civilized beings; I therefore believe that most of these women were led to the altar by other than sexual motives. The desire of bettering themselves, or that of showing others that they could have married before if they liked, influences some; others, like besieged fortresses, surrender at last for the sake of quiet and peace. I admit with some novelists and most physiologists, that, as a flickering flame gives a final blaze, so in some women, sexual desire is strongest when the reproductive power is about to be extinguished; this, however, is not the rule, for I have been repeatedly told, that a distaste for connexion was the first sign of an approaching change. Those who have perused the preceding chapters will understand why I believe sexual impulse at the c. of life to be generally an anomalous if not a morbid impulse, depending upon either neuralgic or inflammatory affections of the genital organs. I can, therefore, corroborate B. de Boismont's assertion, "that whenever sexual impulse is first felt at the c. of life, some morbid ovario-uterine condition will be found to explain it in 19 out of 20 cases." Thus, I deem it imprudent to marry at this epoch without having obtained the sanction of a medical adviser. The danger of doing so is well pourtrayed in the following case, which also shows how women sometimes seek to stay the inexorable hand of time by protracting the regular appearance of the sign of womanhood;

but should they succeed in bringing on an appearance, the flow, if not natural, as heretofore, must arise from a diseased state of the womb, and cannot, therefore, give the hope of progeny.

Some years ago I was consulted by Mrs. * * *, aged 48, who, when about 25, formed a strong attachment, but family circumstances prevented a union taking place. This attachment was kept up with a perseverance that would grace a novel, till fortune smiled upon the parties, and when 45 the lady was married. The discharge had proceeded regularly as to time, quantity, and symptoms, up to the period of marriage, but subsequently it never reappeared. As this sudden cessation coincided with gastric symptoms, with a distension of the abdomen, and, above all, with a great anxiety for children, the patient was considered pregnant, and carefully watched for many months. When the illusion was destroyed, the lady became disconsolate; and, punctilious in her notions respecting honour, she brooded over the possibility of her husband supposing that the courses had stopped previous to her marriage. After a minute investigation of the case, I intimated my conviction that she was in perfect health, and that the monthly flow had ceased. The patient would have given all she possessed to have been able to obtain another interpretation of the fact, and left dissatisfied. About a year afterwards, I was asked to see her again, and learned that, having consulted some one else, she had taken steel, purgatives, and strong medicines, with port-wine and meat twice a-day, without effect for the first few months, but then she had a terrific flooding. She subsequently had continued sanguinoid discharge for several months, which induced a state of great emaciation and the usual symptoms of uterine disease. The patient improved; but her nervous system never recovered the effect of an ill-advised treatment; and, to use the mildest term, she is at all times in a highly hysterical state.

Since this was published in my First Edition, several very

similar cases have come under my observation, and they deserve to be taken into serious consideration, as they emphatically proclaim the danger of marriage at this transitional period of woman's life. It is a crisis and time of danger in which nature should be allowed to work out quietly the metamorphosis of woman from one state to another, and, if interfered with by marriage, the results are frequently fatal. The use, or rather the abuse, of emmenagogues, or forcing medicines, at this period, would be a subject alike interesting and painful to the medical moralist; but it is better to drop the curtain on many of the wounds for which relief is sought.

Besides the various methods of treatment, there are measures which constitute part of the hygiene of the reproductive organs, which can be trusted to the discretion of women. Lotions of water, or of linseed tea, tepid or cold, 10 to 20 grs. of acetate of lead, in a pint of spring water, may safely be used 2 or 3 times a day. Vaginal injections and enemata, with tepid or cold water, are beneficial in allaying irritation, and the following puff powder may be freely used after their application :—

Camphor, carefully powdered	ʒvi
Acetate of lead	ʒi
Starch	ʒii
Essential oil of bitter almonds	♏x

The tepid bath at 92° to 95°, prolonged for an hour, twice or three times a week, will be very useful. Repose will permit these measures to have their full effect, so it would be well to recline on the sofa for several hours in the course of the day.

HYGIENE OF THE DIGESTIVE FUNCTIONS.—Having shown that the debility often experienced at the c. of life depends upon a shock felt by the nervous system, or upon the system being oppressed by an overplus of blood for which there is no longer a monthly drain, it is rational that from the very

first appearance of the irregularities which characterise this epoch, women should curtail, rather than augment, the amount of food and stimulants to which they have been accustomed. When in the family-way or nursing, or so long as the m. flow remains regular and abundant, many women can, without inconvenience, take meat 3 times a day, and beer and wine at both luncheon and dinner; but when the surplus blood produced by this high feeding can neither be employed nor regularly ejected, it increases all the sufferings of the c. of life, and either prevents or diminishes the efficacy of remedial measures. I should be ashamed of insisting on anything so self-evident, if I were not often consulted by plethoric patients, to whom generous diet had been recommended to relieve the nervous symptoms of which they complained. To women of this type especially do my observations apply, and their breakfast should consist of toast or bread and butter, with tea, coffee, or cocoa; they should take but *one* dinner in the day, at whatever hour may suit, but, should it be late, a slight luncheon of bread and butter, cake, or biscuits, with a glass of lemonade, ginger-beer, or soda-water, may be taken. Their dinner should be a plain meal; fish, and white meats, such as fowl or veal, should be eaten, in preference to beef or mutton; more of the crust than the crumb of the bread, and jellies and ice in preference to puddings. If, on the contrary, all sorts of farinaceous food, pastry, and cakes, be indulged in, and ladies take more than they require, the natural consequence will be a desire to prolong sleep, a distaste for exercise, an overloaded state of the organs of the body, congestions, bleedings, inflammations, and apoplexy, or they will become distressingly stout. It would be better for both stout and thin to make their principal meal at the fashionable luncheon-hour of 2 o'clock, in order that their last meal may be light, which can well be managed, even if the usages of society should require a lady's presence at an 8 o'clock dinner-table.

Two or three cups of tea, with cake or bread-and-butter, may be taken if the dinner-hour be early, and a cup of sago, arrowroot, or something equally light, for supper; but those who dine late should avoid suppers. Ripe fruits and vegetables may be indulged in to any amount not interfering with digestion. While those who have a tendency to become fat require different food, sleep, and exercise to those who continue thin at cessation, both should beware of giving way to those sensations of internal sinking and exhaustion to which all are equally subject, and by no means to seek a comfort for languor, weakness, or nervousness, in wine, cordials, and spirits, by which a temporary support only can be obtained at the expense of an increase in the faintness, flushes, perspirations, and nervous symptoms. There is no habit fraught with greater ill-effects; and although prescribing medicated spirits is now gone out of fashion, and carriage-draughts are not in so much request as they used to be, still I feel convinced that it is not unnecessary to enforce this caution.

The system requires soothing by medicines and regimen, not stimulating by spirits; but I have known instances of women who, by a misinterpretation of their sufferings, have gradually so increased their consumption of wine or brandy, that habits of intoxication have been induced. One or two glasses of sherry, claret, or champagne, is an average allowance, either alone or combined with seltzer-water; but some of my patients have been obliged to discontinue even this small quantity, on account of its affecting the head. Effervescing draughts, such as effervescing lemonade, ginger-beer, &c., are well indicated; coffee should be made weak or avoided, as it is decidedly more heating than tea, and tea should be used in moderation. Several of my patients have prolonged their sufferings by ringing at every hour of the day for tea. Ten or twelve cups of strong tea in the 24 hours must tell injuriously on the nervous system. Some of the plethoric type would do well to abstain, for a time, not only

from wine and coffee, but also from pepper and spices: when I meet with a docile patient, I sometimes borrow the regime of the homœopathists, without their globules. Owing to an increase of fat in the omentum and lining of the abdominal walls, as well as to frequent flatulence, the abdomen often becomes very protuberant, in which case I have often given comfort by advising a light, elastic, abdominal belt, such as are made by Mme. Caplin, of Berners-street. Tight lacing, hurtful at all times, is perhaps most so at cessation, as it favours the congestion of the abdominal viscera; though nobody will deny the necessity of giving them proper support by well-contrived stays, particularly when the abdomen and the breasts are pendulant.

HYGIENE OF THE CUTANEOUS FUNCTIONS.—With a view of preserving health the bath should be used at least every week by those who are at the c. of life, and more frequently by those who suffer much from profuse perspirations. The water should be sufficiently warm to impart a grateful sensation, from 92° to 94°, the patient remaining in it half an hour or an hour; and if there be any tendency to headache, the head should be sponged with cold water. If employed before cessation be fully established, the time of the flow should not be chosen to take the bath, as it might produce flooding. A cosmetic bath may be made by taking 2 lbs. of barley, or bean flour, or meal, 8 lbs. of bran, and a few handfuls of borage leaves, and boiling these ingredients in a sufficient quantity of water. This both cleans and softens the skin. Long-continued gentle friction of the painful part by a warm affectionate hand is often of great use. While watching in Eastern countries the long-continued and gentle rubbing of the limbs and soles of the feet of the rich by their attendants, I could not help thinking that the process might, perhaps, be less due to the mechanical friction than to some kind of influence on the nervous expansions with which the skin is so abundantly supplied. Rubbing until the skin glows, or the

actual grooming of the human body, may be very useful to improve the health of scrofulous children, or chlorotic girls, but it is not adapted for women at this period of life.

At cessation the vicarious functions of the skin are so important as to require its being covered as much as possible; and, when there is a great tendency to perspiration, thin flannel should be worn immediately over the chemise, and even over the nightdress in winter, when the patient perspires profusely in bed, otherwise she may be chilled by any change of posture.

HYGIENE OF THE MUSCULAR SYSTEM.—Exercise is extremely useful at the c. of life, for three reasons. 1st. It relieves the congestion of the internal organs, transferring the blood from them to the limbs. 2nd. It has a depletive effect, causing the skin to perspire more, and the kidneys to excrete more urea. 3rd. It expends accumulated nervous energy.

1st. If the late-hour exercises of civilized life are dangerous to all, particularly to the sanguine,—gentle, regular, and long-continued exercise in the cool of the day is very beneficial.

2nd. Dr. Leyman found that, by substituting violent for moderate exercise, the relative quantity of urea in the urine varied from 32½ to 45½; and Mr. Simon found that after two hours' violent exercise, the quantity of urea in the urine passed afterwards, was double that contained in the morning urine. This may be one of the reasons why some plethoric patients derive benefit from exercise carried to a certain degree of fatigue, as recommended by Auber.

3rd. Exercise acts by exhausting those redundant energies which, however little understood, when unemployed produce the fidgets, nervousness, temper, hysteria—a sliding scale which so imperceptibly leads to more serious mental disorders that its successive stages pass unnoticed until the desolating climax demands strict inquiry into all that relates to it.

The observations relative to exercise apply more particu-

larly to walking; driving in an open carriage is likewise good, but horse-exercise should be left off at cessation; indeed, its utility in favouring the m. flow sufficiently points to the discontinuance of the practice during the time preceding and following the change, for then it is likely to cause flooding, piles, and leucorrhœa.

HYGIENE OF THE NERVOUS SYSTEM.—It cannot be too often repeated that nervousness, under every shade and type, may be anticipated at this period, and should be prevented by suiting the habits of life to the changes progressing. It is therefore sufficient to mention that the sufferings of this epoch will generally be increased by frequenting balls, routs, operas, &c., when, in addition to the numerous stimuli to be encountered, hot and impure air must be breathed. The precepts already given bear indirectly on the abatement of nervousness; but I wish to show how susceptible the nervous system is to the danger of sudden bad news, or to any powerful impression, and for that reason I take my examples from the lower orders, whose nervous system is the less excitable.

M. N. was well and regular up to 50, when she went to see a neighbour's child, who was severely burnt, and a dreadful flooding was the consequence. Hearing suddenly of the death of her husband brought on a severe flooding in S. L. In A. B. the m. flow suddenly stopped at 45, on her first acquiring the conviction that her husband was insane; and in several instances, has the news of the sudden death of a husband caused early and sudden cessation. Perhaps the most curious effect of the mind on the body, at this period, was lately published in a French journal. A highly nervous lady, aged 48, had ceased to menstruate 4 years, when she attended a sister during a protracted and painful labour. A few hours after it was over, she was herself taken with similar pains, which produced flooding for several days. Three days after this ceased, the breasts swelled, and a milky fluid came from the nipples. B. de Boismont and others have likewise seen

flooding at cessation produced by some strong emotion, or a sudden fit of anger.

Sleep should not be too freely indulged in by those who belong to the plethoric type; thin and nervous women, on the contrary, may be encouraged to take as much as nature will give them,—even a siesta after meals may be allowed, as sleep is for them the best restorative, and an anti-spasmodic of heroic force.

In obstinate sleeplessness depending upon nervous irritation, a warm bath, before bedtime, is often as serviceable at the c. of life as in infancy. More than once, in cases of great insomnia, I have seen the patient wrapt in cotton wool from head to foot, which was said to impart comfort, warmth, and sound sleep.

Travelling is a great strengthener of the nervous system, for it places the patient in entirely new circumstances, every one of which makes a fresh call on her attention, solicits her interests, captivates her faculties, and completely leads her from trains of thought, to which, perhaps, she had been long enchained. In addition to this, the exercise of various kinds which is willingly taken gives increased vigour to the muscles of the body, and therefore to the brain itself; the mind is consoled by the probability of finding health by an agreeable residence at some watering-place, it feels under the guidance of medical authority, and resumes peace and tranquillity. Indeed, all that has been said in praise of baths, exercise, and the advantage of a studious cultivation of the pleasures of nature, rather than those of society, by women at the c. of life, will clearly point out how their combination may be made serviceable for the cure and prevention of disease at this epoch. Those blessed with ample fortunes can easily avail themselves of this provision safely to get over this critical period, and remodel their constitution so that it may endure for many years. Mineral waters are active medicines, and should never be taken without advice, both of the usual medical adviser, and of one well acquainted with the spring which has been selected. My

remarks on this subject will be found in a previous chapter, wherein I have expressed my high estimation of the waters of Aix en Savoie.

MENTAL AMD MORAL HYGIENE.—During the c. of life, the nervous system is so unhinged, that the management of the mental and moral faculties requires great attention, and often taxes the ingenuity of the medical confidant. The study of the patient's character will teach him, however, what occupation and pursuit is most likely to engross her mind, and effectually replace those of former times. If he be not prepared to be at once a divine, a moralist, and a philosopher, without ceasing to be a physician, his medicines will, in some cases, be of little use. It cannot be wondered at that the full conviction that age has stamped them with its first irrevocable seal, should cast a gloom over the imagination; but in well-trained minds it will soon be dispelled, by the knowledge that this epoch proclaims an immunity from the perils of child-bearing and the tedious annoyances of a monthly restraint.

The natural good sense of many will show them how the notion that after this period little remains to console women for the anxieties and troubles of life, is a *pagan* idea, suited to the position allotted to them in the civilization of Greece and Rome, where they were seldom considered worth more than to amuse men and to bring forth children; but this cannot apply to women after their social emancipation by the doctrines of Christianity. They should be shown that the importance of their position after the great change, may be inferred by the length of time allotted to them after its occurrence, and the singular immunity from disease which is often observed after that period. They should be reminded that many intimate sources of pleasure are attached to every age, but that it would be unfair to ask of one period the pleasures allotted to another.

"Qui n'a pas l'esprit de son âge,
De son âge a tout le malheur."

Besides the vast improvement in health, it must not be thought that the c. of life implies the loss of all personal attractions. The beauty of youth charms; that of mature age excites admiration; but in many women there is at the c. of life and long after, an autumnal majesty so blended with amiability, that it fascinates all who approach them. To those fired with a little noble ambition, it may be safely said, that the home government of society, from Almack's down to the lowest of our social strata, offers a wide field of employment to women after this period of life. Many never think of cultivating their minds until they find their influence fading with their charms, and then set about acquiring a less perishable empire, and employ this period of freedom in literary pursuits. Others govern with discretion that circle of society, limited or extensive, in which they have been placed; becoming the guides, the supports, and mainstays of both sexes in the difficulties of life. Indeed, it would not be too much to say, that in no dwelling can the discordant elements of society be harmoniously blended without the authority willingly conceded to age and sex. It is a matter of history how society has been influenced by the drawing-rooms of Mme. Lambert, Mme. de Tencin, Mme. du Deffand. Those acquainted with French society at the present time will remember the influence of the late Mme. Recamier over a large circle of talented friends; and during my residence in Paris I have myself frequently witnessed the benign influence of Mme. Swichine prompting those around her to what was great and noble; guiding many in the difficult paths of life; healing wounds caused by inexperience; and making many bless her for the happiness they now enjoy. This brings me to the noblest motive to be offered to the laudable ambition of women—that of doing the greatest amount of good to the greatest number of their fellow-creatures. Time dulls the eye, robs the cheek of its bloom, delves furrows in the forehead, but cannot quell the seraphic fire burning in the heart of women, prompting

them to deeds of charity, and to heal the deep wounds which afflict society. Those who have attained their sunset without having been granted the anxious though desirable vicissitudes of wedded life, even if destitute of relatives, or unfortunate in friendship, may still find in the various forms of unmerited affliction which fill our country cottages, or the hovels of our populous cities, that whereon to expend a warmth of feeling, an energy of self-sacrifice, which the sophisticated state of society has not permitted to flow into their natural and more grateful channels. Why then should some women, sensible in everything else, be unable to accept their new position, and, instead of kind and charitable, become, at this period, peevish, harsh, dismal, and viewing everything through a jaundiced veil?

The most distressing appeals to medical sympathy are made by those who, when unnerved by the c. of life, find themselves alone in the world, bereft, when most needed, of the solace of filial piety, or the gushing sympathies of conjugal affection. One can only at first, respond to such appeals, with a sympathizing look and a silent pressure of the hand; but should tears burst their bonds, lightening the suffering spirit of half its load, sweeping away black sorrow, disquietude, and trembling doubts, then it may be hinted that time steals even sorrows from the heart, doubtless because they are sweeter than joy, and that after a brief period nothing will remain but calm judgment and the unmoved remembrance of past goodness, where it was once thought that impassioned love and devoted tenderness must be eternal. The best mode of affording relief, is to discover some kind of occupation capable of engrossing the sufferer's attention, such as music, gardening, the education of a relative or of an adopted child, or the management of a school, or some other charity. The continued friction of social duties will, in time, rub off the asperities of character, and restore peace and tranquillity to the troubled spirit. Every effort should be made, in such a case, to prevent brooding and self-absorption, for the mind

may gaze so long on one object that the moral vision may become affected with the same disorder which befals the bodily eye when fixed too long on one colour, surrounding objects losing their own colours, and shining only with unnatural tints.

> "Universal plodding poisons up
> The nimble spirits in the arteries,
> As motion and long-during action tires
> The sinewy vigour of the traveller."

CHAPTER VI.

DISEASES OF THE REPRODUCTIVE ORGANS AT THE C. OF LIFE.

TABLE XXII.

Liability to Diseases of the Reproductive Organs in 500 Women.

Flooding, a terminal	82
Floodings, successive	56
Leucorrhœa, frequent, at irregular intervals	146
„ monthly	12
Remittent menstruation	33
Vaginitis	4
Follicular inflammation of the vulva	10
Inflammation of the labia	4
Ulceration of the neck of the womb	9
Hypertrophic inflammation of the neck of the womb	2
Prolapsus of the womb	5
Uterine polypi	4
„ fibrous tumours	4
„ cancer	4
Chronic ovarian tumours	3
Habitual deposits in the urine	49
Pain and difficulty in passing urine	9
Incontinence of urine	4
Erectile tumour of the meatus urinarius	2
Irritation and swelling of the breasts	14
Milky or glutinous secretion of the breasts	2
Hard, non-malignant tumour of the breast	2
Cancer of the breast	1
Perineal abscess	2
Total	463

The occurrence of some form and degree of suffering in the reproductive organs in 463 out of 500 women at the c. of life, shows this period to be one of turbulent activity for those organs; and though they are less liable than before to acute inflammation, they are more than usually so to congestion, hæmorrhage, mucous flows, and neuralgic affections. When the c. of life is over, the rule is, that the reproductive organs become more or less atrophied for the rest of life. If they become endowed with activity, it betokens a lower order of vitality, denoting a deterioration of the plastic force. The ovary, the womb, the breast, become more frequently transformed into cystic, fibrous, or cancerous growths. In the following pages, I intend to comment on the affections of the reproductive organs, inasmuch as they are modified by the c. of life and old age; but I disclaim all idea of writing a complete treatise on these or on any other of the diseases of these epochs.

DISEASES OF MENSTRUATION AT THE C. OF LIFE.—Flooding seems to be the only disease of menstruation at this period which has been carefully studied by medical men; but besides flooding there is the *stillicidium uteri*, or continual dribbling from the womb, lasting for weeks or months, and effectually undermining strength. This will be considered when I am treating of uterine affections. The pains accompanying menstruation become unusually intense, and these will be considered in my chapter on "diseases of the nerves." I now propose to show the possibility of restoring the m. flow to a comparative state of regularity, for at least a certain time. Generally the m. flow will appear every 2nd, 3rd, or 4th month, and if the patient be left to the efforts of nature, she will suffer from headache, nervousness, &c., until partial relief is afforded by the recurrence of the m. flow. I give, first, blue pill, or such constitutional remedies as may be required; then, mild tonics and sedatives, tepid vaginal injections, occasional baths, and I sometimes remove 3 ounces of blood

from the arm. This not only diminishes suffering and imparts strength and *embonpoint*, but it often causes the m. flow to come every 4, 5, or 6 weeks, for the ensuing months. The cases alluded to were evidently cessation cases, for although the flow returned with greater regularity, it was more scanty or abundant than usual, and attended by flushes and other symptoms of cessation. If the patients left off their treatment, the m. flow arrived only every 3rd or 4th month, becoming again, to a certain extent, regularized under its influence. This plan places women in the position of those in whom the flow ceases gradually, but I do not agree with Dr. Ashwell, who observes,—"Other measures of a derivative kind will naturally suggest themselves, as mustard hip-baths and pediluvia, frictions, with stimulating embrocations, and the flesh-brush, the continuance of sexual intercourse, and the encouragement, by any gentle means, of the catamenial flow."

Instead of seeking to perpetuate the pelvic congestion by mustard pediluvia and hip baths, I should give whole tepid baths. Blood had better be taken from the arm than the womb, and sexual intercourse should be avoided as much as possible. The following case will illustrate the precepts I have given :—

CASE 13.—*Regularization of the m. flow after a long period of irregularity.*—Mary B., tall, stout, with brown hair, and blue eyes, was 48 when she came to the Paddington Dispensary, February 6th, 1851. The m. flow appeared at 13, and continued very regular, without unusual symptoms, till 25, when she married. She conceived 3 times, had no children, and was regular until the last 2 years, when the m. flow sometimes came every fortnight, at others every 2 or 3 months, was sometimes scanty, at others very abundant, lasting 10 days. During this time she suffered much from headache, and felt heavy, stupid, sleepy, dizzy. Flushes and perspirations were also troublesome. The patient took the com. camph. mixture before meals, the carbonate of soda after, 2

aloes and soap pills every other night, and a scruple of the sulphur and borax powder at night. After taking these medicines for a little time, the head symptoms abated, and did not again trouble her. When I saw the patient in December, I was told that the m. flow had come regularly every month until September, but since then it had disappeared. In 1854, when I last saw her, the m. flow had not re-appeared, but her health had continued good.

It was certainly the mild but appropriate medicines, which, in this case, regularized the m. flow after 2 years of irregularity; and I attribute the patient's subsequent good health to my having induced a more regular mode of action previous to cessation. I have known the m. flow become regular for a year before cessation, after an absence of 10 months, accompanied by evident symptoms of the c. of life.

REMITTENT MENSTRUATION.—Instead of returning every 2 or 3 months, the m. flow may return every 2 or 3 weeks. This occurred in 26 cases out of 383, in whom the m. flow had almost ceased. It is unnecessary to point out how weakening and how irritating to the nervous system is this too frequent recurrence, which can, in most cases, be prevented by the exhibition of sulphate of quinine; a mode of practice I have shown to be eminently useful in earlier periods of life, at p. 50 of my work on *Diseases of Women*. I generally prescribe 3 grs. of sulphate of quinine, 2 of ext. of hyoscyamus, and 1 of ext. of aloes, in a pill to be taken every night.

FLOODING.—Mauriceau, Levy, and others, look upon flooding, after the apparent cessation of the m. flow, as indicating cancer of the womb; Astruc, Gardanne, and some modern pathologists, consider it to depend on ulceration of the womb or its chronic hypertrophy; but as I have known women, free from all uterine symptoms, and in every other respect well, have floodings from a fall, from suddenly hearing bad news, as the death of a relative, it cannot be said to depend uniformly

upon ulceration of the neck of the womb. To test the accuracy of such an opinion, I have examined 20 such patients with the speculum, and in 2 only could I account for the floodings by uterine ulceration. This brings me to the diagnosis of flooding at the c. of life.

When flooding occurs at a catamenial period, as a critical discharge subsiding completely after a few days, every one recognises it as depending on the c. of life; likewise if successive floodings occur at successive m. periods. When flooding occurs a few months or even years after the absence of the m. flow, and is accompanied by flushes, perspirations, and other symptoms of cessation, without being preceded or followed by those of uterine disease, it is fair to suppose that it depends upon the c. of life, and does not in any way indicate structural lesions of the womb; but whenever it does not appear as a downright critical flow, when it is followed by a lingering sanguinolent discharge, with returns of flooding at irregular periods, with leucorrhœa and other uterine symptoms of disease, the case is doubtful, and no medical man can conscientiously give a diagnosis without a previous examination. I have seen women reduced to the last stage of debility by a uterine sanguineous flow being allowed to continue, more or less rapidly, for 2, 3, or 4 years without an examination being made, because these patients were at the time of life when the m. flow usually ceases. Quinine and port wine were given, and change of air recommended; but no astringent vaginal injections, not even cold applications, had been made. I have now under my care a lady, with cheeks as white as my paper, who has been flooding more or less for the last 2 years, being repeatedly told there was nothing to be done, that it depended on the c. of life. On examination, I found a polypus hanging to a cavity of the womb by a pedicle as thick as my little finger. Dugès mentions that, in a case where the m. flow returned periodically after having ceased, he found a large tumour between the bladder and

the uterus, which was pressing and irritating the womb. In other cases of irregular flooding at the c. of life, ulceration of the neck of the womb will be found, as in the following case :—

CASE 14.—*Flooding from ulceration of the neck of the womb.*—Frances W. applied for relief at the Paddington Dispensary, July 1, 1850. She was 46 years of age, of sanguine temperament, of middle stature, and a washerwoman. First menstruating at 17, she continued to do so regularly and very abundantly, for seven days every month. She married at 21, and had nine children, the last at 44. The last was a bad labour, and she has suffered ever since from pain in the back. Two months previous to her admission, instead of menstruating as usual, she had a *show* every day; a fortnight before she applied for relief, she had a sanious discharge, and on the day of her admission, she had suddenly lost about a pint of blood. I looked on these phenomena as indicating cessation. A few days after this she was taken with intense flooding, and in the space of 16 hours she had lost from 2 to 3 quarts of blood. Having been called to attend a patient some miles from town, Mr. Hammond, of Paddington-green, kindly visited her during my absence, and on my return I found her reduced to the greatest state of debility. There was a very weak pulse, fainting, and jactitation. As the flooding still continued, I passed a lump of ice up the vagina, ordering it to be replaced by another so soon as the first was melted. I also applied ice to the hypogastric region, and a bandage, as to a woman recently confined. The flooding soon stopped, and was followed by a muco-sanious discharge. A digital examination, made during the flooding, convinced me that there was a serious organic disease of the womb, and from the irregularity of the internal surface of the neck, into which the finger easily plunged, and from the hardness of the tissues, I was afraid the disease was cancer, but on making a specular examination a fortnight after, I

found the orifice of the neck of the womb surrounded by lobules about the size of a large pea, and the inner surface of its neck highly vascular, in some portions ulcerated, and the whole of the organ much engorged. Being convinced from ocular inspection that the disease was of a purely inflammatory nature, I adopted the treatment most useful in such cases. I touched the surface with the solid nitrate of silver, and a week after I gently applied the potassa fusa c. calce to the same surface; after this the swelling diminished, and the structures put on a healthy aspect. Six subsequent applications of nitrate of silver cured one of the most severe examples of uterine disease I have ever met with. The patient soon recovered her strength, but menstruation remained irregular. Dec. 12, she again came to the Dispensary because the m. flow had lately continued for a fortnight, and had been very profuse. On examination, the womb was found healthy. June 23, 1851, she returned, complaining of feeling heavy and sleepy, giddy and queer in the head. The face was flushed, the eyelids were puffy, and spotted with red, as previous to the flooding last year. I ordered 10 oz. of blood to be taken from the arm, and comp. coloc. and cal. pills, which relieved the symptoms. Oct. 23. The patient had been regular up to the last few days, when she had only a pink show, with sickness, fainting, and red spots on the skin, like the eruption of measles, which soon disappeared. March 20, 1856. This patient came to me for a rheumatic affection of the right elbow joint. The m. flow had come every 3, 4, or 6 months. She was in much better health, stouter, and stronger.

The critical flooding of the c. of life may be mistaken for that caused by fibrous tumours of the womb, or by uterine cancer. Who has not been consulted by women of 45 in every appearance of health for flooding, and has not been grieved to find such cancerous lesions of the womb as warranted the conviction that the patient's days were irrevo-

cably numbered? Louis and Valleix have mentioned that, before any visible cancerous changes have taken place in the womb, profuse menstruation will sometimes be the first symptom of the complaint. This is an additional reason why profuse menstruation should be frequent at cessation. No other cause of flooding is wanted besides the great predisposing cause already discussed; but it may sometimes be occasioned by a fall, a fright, a violent fit of anger, by sneezing, or by connexion. Fothergill has seen an intermittent fever at cessation give rise to menorrhagia every month. Flooding may be symptomatic of complaints affecting the portal circulation. Hippocrates observed that gastric fevers tend to produce metrorrhagia. C. Strack confirms the observation, and B. de Boismont says that hepatitis and biliary congestion often induce uterine hæmorrhage.

Beyond a certain loss of blood which must be estimated by the patient's pulse, by the expression of her features, by her feelings of strength or weakness, the further flow is dangerous. If those who, at this period, lose too large quantities of blood, do not quickly repair the loss, they can seldom do so; and, although not completely invalided, they remain pale, chlorotic, and do not enjoy the degree of strength with which they were previously gifted. Flooding likewise accounts for the nervous disorders of some women. There is, however, a certain amount of danger in stopping the critical flow too soon, particularly in those who are plethoric, or who have been accustomed to lose much blood at the m. periods. J. Frank says he has often seen apoplexy brought on by means injudiciously used to stop the floodings of cessation; and two cases in my own practice confirm this remark. F. Hoffman has seen apoplexy at the c. of life in women subject to an abundant flow. This sufficiently shows that it is wrong to let flooding at the c. of life take its chance, and that it would be well for women always to consider it a complaint requiring medical advice. The treatment of flooding during the attack

ance, scalding when the water was passed, and an acrid discharge. The gentlest digital examination was painful. Before ordering vaginal injections, it is better to reduce the inflammation by a saline purgative, and copious dilution with imperial, or linseed tea; by large, thin, warm, linseed-meal poultices applied to the lower half of the abdomen; by lotions, with linseed tea, adding to each pint 1 or 2 drachms of acetate of lead; by the rectal sedative injections; and by tepid baths every other day, prolonged for an hour. In a few days the lotion may be used as a vaginal injection. According to Huguier, the vulvo-vaginal glands are not liable to inflammation after 45.

NYMPHOMANIA is the almost irresistible desire to relieve the irritation of the pudenda by friction. It differs from erotomania, with which it is often confounded; for, in the last, the mind is viciously inclined, and without any pathological stimulus of the external organs of generation, it stimulates them to satisfy the desires it has awoke. I would willingly ignore so painful a subject, if I did not believe that, by drawing attention to the best means of curing the pudendal affections leading to nymphomania, distressing disorders may be relieved, the contamination of the mind prevented, and that my remarks may cause marriage to be deferred in many cases, which, in reality, require medical treatment. With regard to the frequency of nymphomania and erotomania at the c. of life, it is obvious that only the worst cases come to our knowledge. B. de Boismont met with 6, Mathieu cites several, one in a lady of 50, and another in one of 60 years of age. Dusourd noticed two cases of erotomania, and a third where nymphomania was caused by an herpetic eruption of the vulva. Louyer Villermay cites two cases occurring after cessation. Mathieu and Roubaud believe it of frequent occurrence at the c. of life, and appeal to the old French proverb—*Le diable de 40 ans, si habile à tourmenter les femmes.* I have met with no cases of erotomania, but

I believe that the milder forms of nymphomania are more frequent than is generally supposed. Before seeking to understand how it is produced, it is curious to note that, while the Greeks considered it the result of divine vengeance for neglecting the worship of Venus, it was thought, in the middle ages, to be a proof of Satanic influence, and, at the present time, to be a result of local disease, or of mental aberration. The local disorders which most frequently lead to nymphomania are, follicular inflammation of the vulva, prurigo pudendi, herpes, and vulvo-vaginal neuralgia. These are the complaints which morbidly excite sexual desire, and fatally lead some to marriage and others to self-abuse. Before indicating their treatment, I may state, that cases of nymphomania become more and more rare in after life; their occurrence at all, as well as the numerous examples of lasciviousness in girls before puberty, indicate that there may be sexual desire without ovulation, and possibly without any ovarian action; for Gall has adduced facts to prove that sexual desires may survive the destruction of the genital organs. Sexual desires in such cases merely show the action of the erotic mind over nerves capable of serving erotic purposes.

FOLLICULAR INFLAMMATION OF THE LABIA AND CLITORIS.—I have seen several severe cases of this distressing form of disease occurring at the c. of life, and relapsing frequently during the 3 or 4 years subsequent to cessation. B. de Boismont has also met with several. The agony suffered is extreme, and the irritation such as to render the application of the hands imperative, causing the discharge, at other times mucous, to become stained with blood. In the case of a lady, given in a subsequent page, the irritation came on periodically, and then several hard lumps, about the size of a walnut, would appear in the margin of the labia. These swellings never suppurated, but occasionally a vesicle appeared on the skin. In severe cases of this description, there is no exalta-

tion of sexual desires; on the contrary, connexion is generally abhorrent to the feelings, though it may be otherwise when the affection is slight. The recurrence of this complaint is frequently an indication of uterine ulceration, and some of the worst cases of onanism in young women are the result of undetected uterine disease, which explains the frightful pictures drawn by Tissot and other writers. In a milder degree I believe metritis to be very frequent at the c. of life, and the patient frequently cures it, by repose, cooling medicines, and lotions. The distressing cases which come under medical notice are tractable to well-planned treatment. Lotions should be made use of every 2 or 3 hours, with water containing half an ounce of acetate of lead, and two drachms of laudanum to the ounce of distilled water, and fine linen should be steeped in the lotion, and frequently applied with care to the irritated surface, using afterwards the following powder:—

Powdered starch	ʒv.
Powdered camphor	ʒi.
Powdered acetate of lead	ʒss.
Essential oil of bitter almonds . . .	ɱxx.

A tepid bath should be taken daily, or every other day, warm water being added, so that the patient may remain in it for two hours, or more, if possible. After the full effect of a saline purgative, a sedative rectal injection should be given twice or thrice in the day; and at night a scruple of Dover's powder, or of Battley's solution, may be beneficial. Should this plan of treatment fail, it would be necessary, instead of the acetate of lead, to order the application twice a day of a pledget of fine linen, steeped in nitrate of silver, 10 or 12 grs. to the ounce of distilled water. The patient can apply this herself, taking the precaution of putting on a kid glove; but in some cases it will be necessary for the medical adviser carefully to apply a solution with a paint-brush into the

recesses of the mucous membrane, before its morbid excitement will abate. Trousseau recommends, as a never-failing lotion for this affection, a pint of water, in which is dissolved a large pinch of a powder made with equal portions of deutochloride of mercury and sal-ammoniac. He also recommends two vaginal injections a day, then one of a solution of deutochloride, ʒi. to the pint of cold water; but I have found smaller doses equally effectual.

PRURIGO PUDENDI.—This is by far the most common form of prurigo, and after cessation in advanced life it is often accompanied by prurigo of the whole cutaneous surface, or prurigo senilis. This is a most distressing disease, for it has been correctly remarked by Lorry, that the mere local irritation is often succeeded by a fearful desire for sexual gratification. I have seldom met with severe cases, but B. de Boismont, Gibert, and Mr. T. Hunt, note prurigo and eczema of the vulva and anus as not unfrequent at the c. of life. The following case is derived from Mr. T. Hunt's practice.

CASE 15.—*Herpetic affection of the labia at the c. of life.*—A single lady of 50, who had never menstruated, suffered from irritation, chiefly confined to the left side of the preputium clitoridis, which was in a state of hypertrophy from the constant friction called for by the torments of the disease. As this patient complained also of want of power in the sphincter of the bladder, a careful examination was made, in which it was found that the meatus was larger than usual, and *there was no trace of either vagina or uterus.* When young she frequently had leeches applied to the labia to induce menstruation, but no examination had ever been made with a view of ascertaining the cause of the amenorrhœa, nor was she at all aware, up to the age of 50, that she was the subject of malformation. She had all the other physical characters of a female, together with the modesty and delicacy of mind peculiar to her sex; there was sexual passion, and she would long previously have been married had she not

feared that matrimonial unhappiness might arise out of the extraordinary absence of the catamenia during the whole period of sexual life. She was never conscious of any local pain or fulness at the monthly periods; but she was frequently troubled with head-ache and giddiness at irregular intervals. In other respects her health was excellent; but the pruritus, which was often accompanied with an herpetic eruption on one of the nymphæ, was the great plague of her life. She asserted that nothing but strong religious principles had prevented her committing suicide. Arsenic and other remedies were tried in vain.

Mr. Hunt speaks very favourably of small doses of arsenic given in milder cases, three times a day on a full stomach. Saline purgatives have proved useful; also, prolonged tepid baths, cold baths, cold hip baths, and cold water injections. The lotions recommended for vulvitis will be equally good in prurigo. Ointments with a preparation of zinc, lead, or mercury, may be tried, as well as powders containing calomel and camphor. I have given camphor in various ways, with good effect. Lotions made with the sedative camphorated lotion, or of camphorated vinegar diluted with water, camphor ointments, camphor powders, and camphor sprinkled between the bed and sheet. With Montègre and others, I attribute to nitre a decidedly calming effect in nymphomania.

VULVO-VAGINAL NEURALGIA.—Several of my patients have complained, for a few nights after each m. period, of an intense itching and skin irritation, unaccounted for by any cutaneous eruption. Such cases explain why cessation is sometimes followed by itching of the pudenda, or of the whole surface,—the prurigo latens of Alibert. In some of the most distressing cases of pruritus and perverted feelings, there is nothing morbid to be detected, as in a woman of 60, who was subject to hysterical attacks if a young man came near her, and in whom Biett could discover nothing amiss, although he

inspected the pudenda with a magnifying glass. Lisfranc, and lately Tanchou, have drawn attention to vulvo-vaginal neuralgia; and the last thinks it occurs most frequently at the c. of life. He mentions the case of a lady of 48, who had never suffered from uterine disease. The m. flow ceased at 46, and ever since she had been afflicted with pruritus and darting pains in the pudenda. These sensations were increased by walking and over-exertion. No morbid lesions could be found to explain the sufferings; but they were relieved by the internal exhibition of assafœtida and valerian, and by the external application of opiates and belladonna.

UTERINE CATARRH.—As might have been expected, acute metritis is rare at the c. of life; but chronic inflammation of the lining membrane of the neck of the womb, to which I have drawn attention in the *Lancet*—1854—is not unfrequent, though it generally remains undiscovered, because the pain and sanguinolent discharge it determines are considered the natural consequences of the c. of life. The treatment is therefore often left to nature, which effects a cure in a few years, whereas the patient's sufferings might often be shortened and alleviated by vaginal injections, or by carefully painting the cavity of the neck of the womb with tincture of iodine, or with a strong solution of nitrate of silver. I suspect this disease whenever flooding is followed by prolonged stillicidium uteri, or where this occurs for many weeks without flooding. I have known it last from 5 to 12 months.

CHRONIC ENLARGEMENT OF THE NECK OF THE WOMB.—This has been noticed as occurring at the c. of life by Gardanne and B. de Boismont. I have seen several cases unaccompanied by more painful symptoms than habitual leucorrhœa, last for years and then disappear, without passing into cancer. Dr. G. Bedford has met with soft engorgement of the body and neck of the womb, giving rise to a prolonged sanguineous drain, which he considers not uncommon at the c. of life. Dr. Forget relates the case of a woman, who was, at this

period, subject to violent flooding, and the extremity of the neck of the womb was covered with a soft crepitating and red tissue, which bled on pressure, and presented all the characteristics of erectile tissue. This woman was completely cured by repeated cauterization of the diseased surface.

ULCERATION OF THE OS UTERI.—This affection is much less frequent than at the previous periods of life. I have only met with 9 cases out of 500. Béclard, Otterburg, and Dr. H. Bennet have observed exceptional cases at, and even many years after, cessation; and the last considers it less amenable to treatment; but this does not accord with my experience. The following cases will give a good idea of the severe forms of uterine disease at the c. of life.

CASE 16.—*Ulceration of the neck of the womb at the c. of life.*—Elizabeth B., a fine, tall woman, of sanguine complexion, brown hair, grey eyes, and a Jewish cast of features, was 51 when she came to the Paddington Dispensary, Nov. 22, 1849. The m. flow appeared at 8, and it came regularly without pain until 17, when she married. She had one child at 27, and was regular until within the last 3 years. For the last year she has had no m. flow, and for the 2 previous years the flow came at the 2nd, 3rd, or 4th month. Her health has lately been very bad, and she has habitually felt giddy, heavy, and stupid. The dorsal pains are worse, and she calls them lumbago. Paroxysms of pain at the womb frequently come on, described as passing from the womb to the ovarian regions, and then darting to the epigastric centre, where the pain is intense, causing sensations of great faintness, accompanied by burning flushes and perspirations. For the last 4 months she has been almost always sweating, and when I saw her, the face and neck were so covered with little drops, that she reminded me of a lump of sugar soaked in water and ready to fall to pieces. The comp. camph. mixture was taken 3 times a day, 2 colocynth pills on alternate days, borax in

scruple doses twice a day. A pitch plaster was applied to the pit of the stomach, and tepid baths were taken; these greatly relieved the patient, and she was discharged March 4th, 1850. May 8th, she returned, and said she felt as if she were in the family way. The breasts had swelled and tingled; the nipples were darker than before, and both circles were interspersed with pseudo-follicles. The body of the womb was not enlarged; its neck was twice the ordinary size, and slightly painful when pressed; there was no ulceration or leucorrhœa. I gave opiate injections to relieve the abdominal pains, and vaginal injections of acetate of lead in solution. The bowels were kept open with sulphur. The patient improved, and July 16th, the m. flow came with great pain. She looked sallow; the legs swelled at night; she complained bitterly of abdominal pains, for which mercurial ointment, with extract of belladonna, was tried, and afterwards tartar emetic ointment; sedatives and tonics were also given. The m. flow continued to reappear at irregular intervals, sometimes lasting one day, at others, a fortnight. Oct. 15th, I made another speculum examination, and detected a small ulceration in the internal margin of the os uteri, which I cauterized with the solid nitrate of silver. Three days after the application the patient had flooding, which lasted for a fortnight, and required the application of ice and the internal exhibition of acetate of lead. After this flooding, nothing prevented the surgical treatment necessary to cure the uterine disease. The abdominal pains abated as the structure of the womb became healthy; but she long continued to suffer from the epigastric sensations first complained of, and from dry flushes, for which, until April 24th, 1851, she took twice a day a scruple of the following powder:—

Flour of sulphur	℥ii
Bicarbonate of soda	℥iv
Compound ipecacuanha powder	℈ii

In 1854 there had been no return of the m. flow, nor of the uterine complaint.

CASE 17.—*Ulceration of the neck of the womb during the dodging time.*—Sarah A., a woman of the average size, with brown hair and a ruddy complexion, was 42, when, on the 6th of December, 1853, she came to the Farringdon Dispensary. The m. flow appeared at 13, without much pain. She married at 25; had several children, the last at 35. For the last two years the m. flow was so irregular that she thought herself approaching the turn of life. Six months ago she was at St. Bartholomew's Hospital, where disease of the womb was recognised and surgically treated. This relieved her, but she left the Hospital before she was cured. On examination, I found the neck of the womb very painful when touched, its orifice freely admitted the finger; the discharge was yellow, and ulceration penetrated a quarter of an inch into the cervical canal. This was accompanied by intense ovarian pain, coming on in paroxysms, sometimes shooting down the inside of the thigh and front of the leg to the big toe. January 7th. I cauterized the ulcerated uterine surface with potassa fusa c. calce, and afterwards with a solution of nitrate of silver every 7 days. In the interval the patient used alum injections, and was in every way better. February 4th. I repeated the applications of the potassa fusa c. calce, carefully recommending the patient to return in a week to have the ulceration dressed to prevent the womb closing; but I saw nothing of her until May 12th. Feeling so much better, she did not think it worth while to come to the Dispensary, but about a month ago she had the usual pains of menstruation without the discharge, and she was now suffering in the same way. On examining with the speculum, I found the orifice of the womb closed. The ulcerated surfaces not having been attended to, they had united. A livid spot on the distended cicatricial membrane showed where the m. flow demanded exit, and a crucial incision gave issue to about a tea-cupful

of treacly-looking blood. The edges of the incised membrane were touched with nitrate of silver at the time, and several times subsequently. After the ulceration of the womb was cured the m. flow continued irregular, and the patient often suffered from very severe abdominal pains, but these had subsided when I last saw her, in January, 1856, and there had been no m. flow for a year.

TREATMENT OF INFLAMMATORY UTERINE AFFECTIONS.—Nothing can be more erroneous than to consider a leucorrhœal discharge occurring after the cessation of menstruation as indicating serious disorder of the womb, requiring local examination and caustic applications. If, however, the discharge be very abundant, smells offensively, has an acrid action on the skin, and be accompanied by a great amount of lumbar and sacral pains, it is most probably secreted from an ulcerated surface of the womb, and it would be the height of absurdity not to ascertain, by a proper examination, what is the real nature of the case. The foregoing instances sufficiently show how uterine inflammation may be radically cured by those surgical applications which my venerable teacher, the late Professor Recamier, of Paris, first introduced into practice some 40 years ago.

If the case be one of inflammation of the os uteri with erosions, it would be well freely to paint the diseased surface with the solid nitrate of silver, and after this had been repeated once, or more frequently, at 5 days' interval, a solution of the same salt might be applied. In all such cases vaginal injections should be made by the patient 2 or 3 times a day, with linseed tea; a solution of acetate of lead, or of alum, 1 or 2 drachms to the pint. The patient should lie down when using the injection, prolonging its use for 5 minutes at least, using Coxeter's patent syphon syringe. Three oz. of blood removed from the arm of a patient every 2 or 3 months after cessation, may help her speedy recovery. In cases of chronic swelling of the womb, it may be well to try the effect of

painting its neck with tincture of iodine, while the patient takes from 30 to 60 drops of Davenport's syrup of iodide of iron and potassium. The 60 drops contain 2 grs. of each salt; they should be taken through a quill, to prevent the discoloration of the teeth, and the mouth should be cleansed with water, in which a little bicarbonate of soda has been dissolved. I have but briefly indicated the essentials of the surgical treatment necessary to cure local affections, because I am not now writing a work on diseases of the womb; but as the utility of using the strong caustics in uterine surgery has been lately very strongly contested, it would be shrinking from a public duty not to give the profession the result of my experience on this point. I therefore emphatically state that it would be very detrimental to the public good if potassa fusa c. calce and the acid nitrate of mercury were withdrawn from our hands, for, if skilfully employed, their effects are admirable. They not only enable us to cure safely long-standing cases, but often to heal, in a few weeks, uterine ulceration, the treatment of which would last for months, even if the solid nitrate of silver were applied every 5th day. With regard to the possibility of mutilating the neck of the womb by potassa fusa, it is, doubtless, possible; but I have merely sought to obtain from it a superficial eschar, preferring repeated applications, if necessary, to the risk of mischief occurring from a too energetic first application. Thus employed, no mutilation of the neck of the womb has occurred in my own practice, nor have I found it in that of Dr. H. Bennet, whose patients I have been for many years in the habit of attending when he was out of town. If some seek to obtain a superficial eschar from the use of potassa fusa c. calce, there are others well qualified to form a correct opinion, who, in similar cases, think themselves justified in destroying a considerable portion of the neck of the womb. I have seen a practitioner of high standing use the caustic potash with this view; some of his pupils adopt the same plan, which, in the

hands of one, has caused permanent uterine stricture in a lady now under my care. The potassa fusa c. calce should be employed *skilfully;* practice alone gives skill, and all powerful caustics become dangerous weapons in inexperienced hands. The last case shows that even when judiciously used, it may give rise to obliteration of the neck of the womb, if the wound be not repeatedly dressed after the falling of the eschar; but this strong tendency to heal only shows how valuable is the agent, provided its energy be properly directed.

UTERINE DEVIATIONS.—Patients seldom seek advice at the c. of life or after cessation for uterine deviations, but they nevertheless exist. Dr. Saussier de Troyes says, that out of 102 cases of uterine deviations, he has met with 11 women, from 40 to 50, suffering from this disease. I have detected many well-marked cases of anteversion and retroversion at the c. of life and after cessation, but they caused neither hypertrophy, inflammation, nor neuralgia. This shows that women do not suffer from the displacement itself, but from the complicating inflammatory or neuralgic affections—facts calculated to convince the uterine orthopedists of the present time, that they are wrong to consider the displacement as the chief indication of the treatment of uterine deviations, which should be governed by the morbid condition causing or complicating the deviation. I have seen procidentia uteri occur for the first time at the age of 49, to a single lady living in affluence, which could only be ascribed to forcing pains, frequent, though by no means severe, occurring during the dodging time.

B. W., aged 65, suffered as much from prolapsed womb after as before cessation, which occurred at 48; she consulted me for flooding, the consequence of a contusion of the prolapsed womb on being knocked down in Holborn.

The very rare cases of prolapsus in old age are explained by the fact insisted on by Kiwisch, that although the womb has become atrophied, it is less powerfully supported by a

weaker and shorter vagina, and is no longer padded by the fat, which, in youth, abundantly lines the pudenda.

UTERINE POLYPI.—They obscure the limitations of the m. period, retard cessation, complicate its diagnosis, and are as frequent at the c. of life as in previous periods. This will be shown by the following table, which embodies Depaurtren's experience, and likewise proves the little frequency of polypi after cessation. Polypus of the womb began in

1	woman	from the age of	15 to 20
10	„	„	20 „ 29
19	„	„	30 „ 39
23	„	„	40 „ 49
3	„	„	50 „ 59
1	„	„	60 and above.
57			

UTERINE FIBROUS TUMOURS.—Braun and Chiari at Vienna, Malgaigne in France, and Mr. Paget and Dr. West at home, establish the fact that between 40 and 50, uterine fibrous tumours are generally fatal; and I believe, with Dr. West and Dr. H. Bennet, that most of these polypi and fibrous tumours originated from 30 to 40, though they may have only become apparent at the c. of life. Fibrous tumours retard cessation, and render the occurrence of flooding more frequent, which is not surprising, considering how profuse the m. flow becomes so soon as a fibrous body is developed in the womb. I have a patient, now 51, in whom a large fibrous tumour began at 33; and ever since, the m. periods, though continuing regular, are extremely painful, and she passes a large quantity of blood, looking like treacle. After cessation the tumour may diminish, provided the c. of life has not given it an increased impetus.

S. A., tall, thin, with dark hair, aged 51. The m. flow came at 12, and continued regular but scanty. She married at 21, but never conceived. The m. flow remained regular

[illegible] when a flight brought on shedding; the abdomen then swelled, and she was thought pregnant. Shedding was almost never so low for 5 years, but it never interfered with her appetite, and only lately with her strength. It has now stopped. The os uteri is enlarged, but in a healthy condition, and a large, flattened, fibrous tumour is easily detected lying across the abdomen.

Those who have passed some time at the Salpêtrière know that frequently the fibrous bodies of the womb are found connected with cancerous deposits, in that these bodies are replaced by cancerous structure, which can be enucleated from the walls of the womb. I have seen a marked illustration of the tumours that communicate with the internal and external exhibition of iodine. Lugol's syrup of iodide of iron and iodide of potassium in alcohol, three being given twice a day. The iodide of potassium ointment was used externally.

CANCEROUS DISEASE OF WOMB. The internal surface of the womb may become covered with a cancerous shell. In 9 out of the 18 cases collected by the elder Louis, menstruation had taken place, and the age of the others was not mentioned. The 14th case in Louis' Researches relates to a woman who was subject to violent hysterical fits at 40, and these subsided coincided with the formation of a hard tumour behind the pubis, which gave rise to the internal symptoms. After menstruation, she was troubled, for 20 years, with leucorrhœa, which sometimes bled, and she died at last of consumption. Under the uterine peritoneum was found a cancerous mass, containing an innumerous cancerous looking fluid; its shell was four lines thick, and so hard that a hammer was required to break it. This case resembles one of mine related by Dr Dalton, *Vide* Vol. Ap. VIII. A woman aged 40, two months after menstruation, had difficulty in passing water and a swelling of the womb. Anasarca, atrophy, and death ensued. The womb was found distended, its walls as thin as paper, and

containing a yellow curd-like fluid, said to be disorganize blood.

CANCER OF THE WOMB.—The cancerous diathesis is ce tainly most frequently observed at the c. of life, for it is show by the Registrar-General's Report, that previous to 30 yea of age cancer is uncommon, both sexes being then equal liable to it; that between 30 and 90 cancer is very commo and that the relative number of deaths from it in women an men is,—

From	30	to	40	as	19	to	6
„	40	„	50	„	51	„	6
„	50	„	60	„	5	„	1

Out of 1200 cases abstracted by Dr. Walshe from th Registrar-General's office, 321 referred to males, 879 t females, and 50 only out of the 1200 occurred before 30 yea of age. Leroy d'Etiolles found, that out of 2781 cases c cancer, collected from French authors, the disease occurre 1227 times in persons above 40 years of age, and 1061 time in those who had passed 60. The womb was affected wit cancer in 30 per cent. of these cases, and the breast in 24 pe cent.

The statistics of Bayle, Boivin, and Lever, confirm th general belief that cancer of the womb is most frequen between 40 and 50; and Dr. West has lately shown that ou of 426 cases recently collected by Lebert, Kiwisch, Scanzon Chiari, and himself, 178 occurred from 40 to 50, and 12 from 30 to 40. The same fact results from the followin table, published by Tanchou, *Gaz. des Hop.*, 1838.

TABLE XXIII.

Age of 2568 Women dying from Disease of the Sexual Organs in the Department de la Seine, from 1830 to 1835.

Age.	Disease of Sexual Organ.	Cancer.	Remarks.
Before 20	35		
From 20 to 30	442	86	Maximum of inflammatory affections.
„ 30 „ 40	279	212	
„ 40 „ 50	137	402	Maximum of cancer.
„ 50 „ 60	70	363	
„ 60 „ 70	60	242	
„ 70 „ 80	42	147	
„ 80 „ 90	13	58	

The influence of cessation in producing cancer of the womb is to me evident. Sometimes it coincides with the first manifestation of uterine cancer, as in 6 out of Lebert's 18 cases, and in 17 out of 37 of my own. Cessation often gives great activity to latent cancer of the womb, though it may occur in subsequent years. It may be caused by the constitutional change determined by cessation, or by the sudden check of an habitual flow. Duparque and Saucerotte, while admitting its frequency at the c. of life, believe it to have originated long before; but if the average duration of uterine cancer be about 16 months, as stated by Lebert and Dr. West, and if, as I have shown, the average duration of the dodging-time is three years, then the coincidence between the c. of life and the development of cancer becomes obvious. Sir C. M. Clarke considers the corroding ulcer of the womb peculiar to the c. of life. With regard to treatment, I shall merely state, that it may be better to give a patient the hallucinations of belladonna, than to leave her a prey to agonizing pains. When the womb, rectum, and bladder, are united into a foul cloaca, cold water irrigations promote cleanliness, assuage pain, and sometimes induce sleep. In only 10 out of 68 cases collected by Dr.

Geil of Erlangen, was the internal surface of the womb found tuberculous in women from 40 to 50; whereas, 22 cases occurred from 20 to 30.

UTERINE HYDATIDS rarely occur from 40 to 50; but Dr. Ashley thinks the complaint more dangerous at the c. of life.

FATTY DEGENERATION OF THE WOMB.—Two cases have been lately recorded by German writers as having occurred at 50 and 53 years of age.

OVARIAN TUMOURS.—Like uterine polypi and fibrous tumours, ovarian cysts frequently originate in the period of full sexual activity. Thus, Lebert found that out of 59 chronic ovarian tumours,

15	occurred	from	20	to 30	years,
12	„		30	„ 40	„
13	„		40	„ 50	„

From the 5th Report of the Registrar-General, it appears that out of 100,000 deaths from all causes, there were 1205 from ovarian dropsy, of which 362 occurred from 40 to 50, and out of 44 deaths occurring in London from this disease in 1848, 17 were between 40 and 50; thus confirming the received notion that ovarian tumours are most fatal at the c. of life, even if they have originated previously. The cure of those eccentric products is as difficult as that of uterine fibrous tumours; their march is often more rapid and more speedily followed by a fatal termination: but, as far as the m. flow is concerned, ovarian are far less detrimental than fibrous tumours; for ovarian tumours, when developed many years before the average date of cessation, oftener diminish than augment the m. flow; which, in other cases, proceeds uninterruptedly, and is sometimes altogether absent. It seems to me that the date of last menstruation is rather brought on earlier than retarded by the growth of ovarian tumours, as I have stated in the chapter on the physiology of the c. of life; at all events, they give rise to no flooding.

The cases of galloping ovarian tumours generally take place between 20 and 40; and when an ovarian tumour has remained quiescent for some time before the c. of life, this will either give it increased activity, or cause it to remain stationary for many years. There are many instances on record of women having lived to an advanced age without their comforts being much interfered with by this infirmity; so that the influence of the c. of life on ovarian tumours is rather favourable than otherwise. In various medical journals, I have systematically treated the pathology of these chronic ovarian tumours; and it would be swerving from my plan to enter now more fully into the subject. I will, however, add, that I have lately, in several cases, very considerably diminished the volume of the tumour, without impairing the general health, by giving the syrup of iodide of iron and iodide of potassium.

VESICAL AFFECTIONS.—The 49 cases in which women were, for a few months, habitually subject to an increased amount of the saline constituents of the urine, are rather to be considered as a critical evacuation of the blood than as proofs of diseased action, and the same applies to *Hæmaturia*—a rare disease—which has been observed by Chouffe, Meuville, Dusourd, and myself. My cases yielded to bleeding and mild treatment.

The 8 cases of pain in, and difficulty of, passing water, and those of incontinence of urine, soon yielded to diluents, baths, and mild measures. I have met with 2 cases of erectile tumour of the meatus urinarius, a disease first described by Sir C. M. Clarke, and by him thought to occur most frequently in the earlier part of woman's life; but I am confirmed in the contrary opinion by Mr. B. Norman, who has observed 15 cases, 11 of which were in women during or after the c. of life. My cases did well after the repeated application of strong nitric acid. The immunity from diseases of the bladder and urethra which so frequently afflict men from 40

to 50, compensates beautifully for the many complaints to which women are specially liable.

MAMMARY IRRITATION AND SWELLING.—This is only noted in 14 out of my 500 cases, though I believe it to be much more frequent. The breasts are swollen and painful, the nipples sore, and sometimes distil a milky or a glutinous fluid. Friction, pressure, or moving the arm, increases the sufferings, which may be appeased by constitutional treatment, by camphorated liniment, and by wearing cotton-wool next the skin. Spontaneous ecchymosis sometimes marks the breasts at this period, and Dr. Semple has published a case in which a bloody discharge from the nipples continued, every month, for 5 years after cessation.

NON-MALIGNANT MAMMARY TUMOURS.—Velpeau attributes these to diseased menstruation at puberty and at the c. of life, or at pregnancy, and diseases of the womb; and says truly that, after cessation, they cease to increase and often diminish, so their extirpation should not be too soon determined upon. Gardanne relates 2 cases in which the mammary tumour appeared at cessation, and was cured by leeches. My 2 cases yielded in a few weeks to leeches and applications of iodide of lead ointment. Galen observed, that cancer of the breast was frequent at the c. of life, and Mr. Paget has lately shown that it occurs most frequently from 45 to 50 years of age.

CHAPTER VII.

DISEASES OF THE GASTRO-INTESTINAL ORGANS.

TABLE XXIV.

Liability to Diseases of the Gastro-intestinal Organs in 500 Women.

Monthly toothache and swollen gums	1
„ Water-brash	5
Hæmatemesis	4
Repeated vomiting of mucus	31
Jaundice	6
Long-continued biliousness, induced or increased	55
Dyspepsia	37
Monthly dyspepsia	1
Obstinate constipation	23
Frequent diarrhœa	45
Monthly diarrhœa	5
Entorrhagia	20
Monthly blood in motions for 6 months	2
Pus in motions	3
Inflammation of the rectum	3
Piles	62
Bleeding piles	24
Piles bleeding every month	1
Swelled abdomen	26
	354

Thus 354 out of 500 women suffered more or less at the c. of life, from some affection of the gastro-intestinal organs. The practical bearing of this table is, the great liability to

biliousness, dyspepsia, diarrhœa, and piles. Later in life, th liability to jaundice, biliousness, and dyspepsia runs off, an appetite and digestion improve, unless there be cancer of th stomach; there is also less tendency to lose blood by the bowels piles cease to bleed, and generally subside in advanced life.

BILIARY AND DYSPEPTIC AFFECTIONS.—The liability t derangements of the biliary apparatus at this period has bee noted by Burns, Gendrin, Meissner, Otterburg, and D: West. Hepatitis and jaundice have been observed b Gardanne, and Sir H. Halford mentions having seen absce of the liver at cessation.

The late Dr. B. Lane's observations on the coincidence c the derangement of the biliary secretions at the c. of life, ar true to nature :—"Nothing can be more common than to fin severe biliary derangement occurring at or about the perio of menstrual cessation; and, looking at the great physiologica change which then takes place in connexion with hepati development, it is naturally to be expected. A woman wi complain of being bilious—there may be a bitter, oily tast in the mouth, a burning in the throat, frontal headach nausea, and even vomiting, the urine high-coloured, the bil abounding in the alvine dejections, and perhaps causing hea and a stinging sensation in the rectum, the tongue furred, biliary tinge pervading the cutaneous surface."

I may also remark that many of the worst cases for whic I am consulted have been ascribed to a torpid condition of th liver by other medical men; and though the preceding tabl shows more clearly than had hitherto been accomplished, ho liable women are to sickness, dyspepsia, and biliousness at thi epoch, it cannot give an idea of the obstinacy of the biliar symptoms in many of these cases. Thus, P. K., a strongly built woman, of a sanguine temperament, in whom the m flow had been irregular for the last 8 months; till then she ha enjoyed good health, but since, in spite of purgatives, alt ratives, and tonics, I have not been able to set right the gastr

intestinal functions, or to improve the appearance of the tongue, which is permanently coated with a yellow fur.

CASE 18.—*Jaundice caused by cessation.*—Mrs. W., a tall, stout lady, with dark hair, 49 years of age, and the mother of 13 children, consulted me in June, 1854. The m. flow appeared at 12, and continued regular until it ceased suddenly at 47. Six weeks afterwards the skin became yellow, and she suffered considerably in the region of the liver. She was soon cured, but every 3 or 4 months there was a return of jaundice. This lady is habitually low spirited, and so drowsy that she can neither read nor do fancy work during the day, and yet is restless at night. She has often flushes and chills, but no perspirations. After diminishing the size of the engorged liver, and curing the actual attack of jaundice by blue pill and alkalies, the question was, how to prevent that congestion of the liver which had returned with a certain kind of periodicity, since the sudden cessation of menstruation. I sought to relieve all morbid irritation of the liver by giving blue pill and alkalies for a week every month, and to establish a free determination of blood to the skin, so that it might diminish the congestion of the internal organs, I ordered warm baths, prolonged for two hours every other day, and daily scruple doses of the comp. sulphur powder. To facilitate these therapeutical effects, I advised 2 oz. of blood to be taken from the arm every 2nd, 3rd, or 4th month, as might be otherwise indicated. Gentle perspirations soon showed that the blood currents were steadily set in a right direction, the health became good, and for the last 2 years there had been no return of jaundice. The same plan of treatment succeeded equally well in the following case.

CASE 19.—*Repeated jaundice at cessation.*—Mrs. H., a robust lady, with a bilious look, consulted me in June, 1854, being then 55. The m. flow came at 15, and continued regular until she was 48, when it ceased suddenly. She was then

troubled with piles, which bled freely every 6 or 8 weeks. This went on for 6 months. When the piles ceased bleeding, her skin became yellow, and the liver was found extending several inches below the edge of the false ribs. She has had several slight fits of jaundice, and her motions are often black, offensive, and "burn" the passage. It should be observed that both this and the patient in the previous case, had never been particularly bilious before cessation. The cause of long-continued biliousness at the c. of life, is the congestion of the portal system, no longer relieved by the m. flow. Thus I have seen jaundice occur in young women from the sudden suppression of the m. flow, and have sometimes noticed a persistent loss of appetite for months, notwithstanding the administration of alteratives and tonics. Barras gives a case of obstinate anorexia and emaciation beginning at the c. of life, and followed by the death of the patient after 3 years of suffering. One of my patients had no other symptom than water-brash, which appeared at cessation, and recurred every month for 8 months. Hufeland and Menville speak of the liability of women to hæmatemesis, which occurred in 4 of my cases.

TREATMENT.—The frequency and tenacity of biliary and dyspeptic affections at this period, explain why purgatives have been considered the principal medicines required; but an occasional purgative will have little effect, a systematic plan of treatment must be resorted to, and calomel or blue pill associated with the comp. ext. of coloc., or with the soap and aloes pill, is well borne and often required. I have derived but little benefit from tonics given alone; but the patient will do well to take for one week in every month the inf. of cascarilla, adding 3 drachms of diluted sulphuric acid to 6 ounces of the infusion. A table-spoonful or two should be taken a quarter of an hour before meals, and immediately after them 15 drops of liq. potassæ, in a wine-glass of water. Two or three effervescing draughts, with citric acid and carb. of soda or potash, should be taken during the day. They may be

flavoured with syrup of ginger, or syrup of orange peel, or 10 to 15 drops of chloric ether. Porter and beer should be avoided. Prolonged tepid baths are useful, and an occasional small bleeding may favour the action of the remedies. I have seen cases which resisted all treatment cured by mineral waters, and such patients I send to Vichy, or to some of the German Spas, where they find sparkling alkaline water to drink or to bathe in; the action of the medicine being admirably assisted by the early hours, the plain diet, and the complete change of all the associations of life. The waters of Aix en Savoie, when combined with mercurials, have also produced good results.

VOMITING.—This is not uncommon during the c. of life, sometimes accompanying the m. flow, and replacing it at others. This symptom generally yields to morphine, a 12th or a 6th of a grain of the acetate being given in an effervescing draught, and repeated until sleep be induced. A patient, who for years had suffered from vomiting at the m. periods, is always relieved by less than half a grain of the acetate, while 2 grains, taken in the 24 hours, will not always quell the vomiting of another patient. The usual modes of treatment failing, rather than let the patient die, it would be better to imitate Moscati, who applied the actual cautery to the pit of the stomach. For several hours there was no vomiting, and the patient was finally cured by the subsequent suppuration.

DIARRHŒA.—This has been noted as occurring in an habitual manner at this period by Gendrin, B. de Boismont, and Chambon. It may constitute the only symptom of cessation, and must always be considered a critical discharge, the suppression of which by active remedies Portal saw bring on anasarca. The advantages and disadvantages of diarrhœa at the c. of life are shown in the following cases:—

CASE 20.—*Chronic diarrhœa caused by cessation.*—Dr. Francis Smith, of Richmond, introduced to me a tall, stout, and

morning, and were evidently connected with uterine disease. Chambon also has seen the constitution thoroughly shattered by diarrhœa at the c. of life. I have met with women who, in advanced age, had several semi-fluid motions in the course of the day, without suffering in the least. Dr. Day has met with similar cases, though the bowels generally become confined.

TREATMENT.—I seek to restrain the diarrhœa by diet and abstinence, but if that be insufficient, I use chalk mixture, and after that, small doses of Dover's powder with blue pill made up into pills. Extra clothing and exercise, a warm bath, and small bleedings, if the patient be plethoric, may be useful. The following cases will show the plan to be adopted in cases of entorrhagia:—

CASE 22.—*Periodical entorrhagia caused by cessation.*—Miss M., thin, nervous, and chlorotic, consulted me in 1853, being then 48. The m. flow appeared at 15, and continued regular until about 3 years ago. For a year the flow was sometimes more, at others less, and it suddenly ceased 2 years ago, after a succession of frights, which thoroughly shook her nervous system. Her health, good until cessation, has been bad ever since. She is often troubled with cough, leucorrhœa, and loss of power in the lower limbs. She has become unusually nervous, feels, at times, as if she were going into fits, talks of strange sensations in the head, as "if she had taken something to make her silly." This nervous state is peculiarly marked every 3 months, when she menstruates by the bowels for about 6 days. Several times a day she feels great pain at the lower part of the abdomen, there is then anal tenesmus, and she passes a small quantity of blood and mucus. This has occurred for the last 2 years, and during all this time there have been no flushes nor perspirations. In this case, the conservative powers of the system actually did for 2 years what I have so often recommended. I gave her the comp. camph. mixture before, the carbonate of soda after meals, 3 grs. of blue pill, with 2 of ext. of hyosc., on alternate nights, and a warm

bath for an hour every other day. This was continued about a month with great amendment of the nervous sympt and a week before the time for the passing of blood by bowels, I had 3 oz. of blood taken from the arm. This vented the hæmorrhage, without ill effects. I then adv the mixture and carb. of soda to be taken as before, an much of sulphur and borax as would ensure a comfort action of the bowels the next day. In a few weeks ge perspirations had become habitual, and afforded great re This patient took the syrup of citrate of quinine and in 30 drop doses twice a day for 2 months, and bec comparatively strong. I had once more 2 oz. of blood ta away before the hæmorrhage was due, and lately, when I the patient, she was in good health.

CASE 23.—*Repeated entorrhagia and hæmoptysis cau by cessation.*—Miss G., a tall, delicate looking lady, consu me in 1852. The m. flow appeared at 16, and it had bee source of trouble until 2 years ago, when it became irreg sometimes missing for 2 or 3 months, sometimes being sca at others so abundant as to amount to a flooding. A shivering and griping pains this patient has sometimes pa considerable quantities of blood and mucus, and once brought up a large quantity of blood from the lungs. S cessation took place, the passing of blood from the bowels not been more frequent, but, notwithstanding contin flushes and perspirations, she is very nervous, is troubled sensations at the pit of the stomach, as if some one v sitting there, has choking sensations never before experien is very low-spirited, given to crying fits, and though slee pretty well at night, could do so all day. What, however, patient most complains of is, frequent recurrence of pai the lower part of the abdomen, and for the last few nights legs, the pudenda, and the seat, are much swollen. This me to anticipate a recurrence of the entorrhagia, so I ord a hot linseed poultice to the lower part of the abdomen

night, and an ounce of castor oil to be taken in the morning, during which day she passed "blood and corruption," and continued to do so with a great deal of griping for 5 days, which has relieved all her abdominal suffering. All her life this patient had never less than 3 motions daily; the m. periods always ending with 5 or 6 motions a day; this being the habit of body, it is easy to understand that for the last year, ever since cessation, the system should seek relief by the intestinal surface. With a view of remedying this state, I ordered the co. camph. mixture before, and the carb. of soda after meals, 3 grs. of blue pill, 2 of ext. of gentian, and 1 of ext. of hyoscyamus, every other night; 10 grs. of Dover's powder every other night; a belladonna plaster to be applied every week to the pit of the stomach, and warm baths to be taken for an hour on alternate days. This treatment was continued with considerable advantage for a month, when the baths and plasters were omitted, and the pills were only taken occasionally. Two months after I first saw the patient I had 2 oz. of blood taken from the arm, and this was repeated 3 months after. I last saw her about a year ago, and she was well; neither the hæmorrhage nor the m. flow had returned.

CONSTIPATION.—This was observed in 23 cases, and yielded to the continued use of mild and varied purgatives. In some cases, the patients suffered severely from colics.

CASE 24.—*Habitual colics and constipation.*—Mrs. T., aged 47. The m. flow came at 15, and left gradually at 45. Ever since cessation, she has been constipated, instead of relaxed, as before; and during the last year she has been troubled every two or three weeks with colic, flatulence, and sometimes vomiting. These symptoms coming on every night with greater severity, I prescribed pills containing one grain of ext. of opium and 3 of c. ext. of colocynth. Two pills nightly were at first required to lull the pain, and then one sufficed. This plan of treatment was very successful, the

tenesmus in the rectum. It will sometimes cause a difficulty of passing water, and a sensation as if a foreign body were in the vagina. With repose and cooling lotions, these symptoms generally abate; though intractable cases will sometimes occur like the following, which is a remarkable instance of severe suffering caused by the c. of life.

CASE 25.—*Inflammation of the rectum caused by the c. of life.*—Charlotte O., the wife of a plumber, in good circumstances, is a short, average-sized woman, with brown hair, flushed, puffy, and damp face, downcast looks, and seems drowsy, as if she had been drinking. She was 44 when she came to the Farringdon Dispensary, April 23, 1851. The m. flow appeared at 18, after pains flying about her; and soon after its appearance, she suddenly felt something shoot through the ears, and her neck became stiff. She has never since been able to turn her head freely; and when she tries to do so, she feels something crack. The m. flow came regularly so long as nothing disturbed the even tenor of her life, but a fright would at any time cause it to appear. She married at 23, and 7 months afterwards she flooded, and lost much blood for 2 months; since then, the m. flow often lasted for 3 weeks, and was accompanied by a difficulty of passing water. She has consulted many doctors, but no accurate examination was ever made. She never conceived, and has had no serious illness until lately. Although happily married, since marriage she has become more nervous, more easily excited by the everyday occurrences of life; but she has never had any hysterical attacks. For the last 7 years she has been frequently troubled by uneasy sensations "of fulness and rawness" at the pit of the stomach. The weight of the bed-clothes annoys her. The m. flow has been irregular for the last 8 months, coming every 2 or 3 months, and twice she has been flooded. Since then, she has been more subject to headaches, and to pain at the nape of the neck. Now she is often light-headed, giddy, forgetful; and so drowsy, that she is obliged to lie

rectum gave intense pain; and she said, she had passed a membranous substance from the bowels. My injunctions about bathing had not been followed up, and I could not persuade the patient to be bled again. The mixture was ordered, a tea-spoonful of sulphur and borax every night, a scruple of nitre in a little barley-water twice a-day, and a large belladonna plaster to be applied to the pit of the stomach. Sept. 19th.—Tongue furred, very yellow, constipation, bearing-down pains, agonizing sensations, "as of fire, in the back passage." On making a careful examination, there was no fistula or fissure, the sphincter was hot and swollen, the rectum also felt hot, and the finger gave pain. The mixture was ordered before meals, carbonate of soda afterwards. Blue pill and hyoscyamus every night, to be followed by half-an-ounce of castor-oil in the morning. Three times a-day injections were to be made into the rectum of half linseed-tea and half a strong decoction of poppy-heads; and a little later, with equal quantities of saturnine lotion and decoction of poppy-heads. Various other injections were tried to relieve the distressing symptoms which often returned; but nothing succeeded so well as making a full injection of tepid water, to cleanse the bowels, and then injecting an ounce of the following solution, with 2 oz. of warm milk :—

Lotio plumbi acetatis	ʒiv.
Tinct. hyoscyami	ʒiv.

Feb. 19th, 1854.—The m. flow had been absent for the previous 18 months, when, 2 months ago, she had a pale red vaginal discharge, which returned the following month. She came to the Dispensary on account of a relapse of the inflammation of the rectum, which I relieved by the measures previously described. In May, 1856, I again saw the patient for a slight relapse; and as she complained of a yellow discharge, I examined, and found the vagina shorter and narrower, and the neck of the womb smaller than on a

previous examination. Pressure on the rectum gave gre pain, and indicated the seat of the disease. The patie soon got better; but during the 5 years I have watched th case, I have seldom met with a more distressing example suffering caused by the c. of life. The patient is intelligen in good circumstances, can nurse and lay up when necessar which is in her favour; but her prejudices against bleedin and baths increased her sufferings. Now, her health is i every respect better; and as she is 48, and there has been n m. flow for more than 3 years, I believe her constitution wi gradually become stronger.

PERMANENTLY SWELLED ABDOMEN.—This condition, at th c. of life, is generally to be accounted for by an increase deposit of fat in the omentum and in the abdominal walls,- a physiological condition treated of at page 40. Sometim the swelling is principally caused by distressing flatulent di tension of the bowels, without diarrhœa or constipation. have known this to recur every month for several years afte cessation, lasting two or three days, and yielding to carmi natives.

CHAPTER VIII.

DISEASES OF THE SKIN AT THE C. OF LIFE.

TABLE XXV.

Liabilities of the Skin to Disease at the c. of Life in 500 *Women.*

Flushes occurred to	287
Dry flushes	14
Legs and feet burning, and very painful	2
Hands painfully hot	3
Distressing aching under the finger nails	2
Peeling off of the nails	4
Falling off of all the finger nails	1
Perspirations	201
Monthly ditto	2
Cold ditto	13
Sweats	89
Undetermined cutaneous eruptions	18
Nettle-rash	5
Erysipelas	4
Eczema brought on	3
„ increased in	2
Ecchymosis	3
Shingles	1
Herpes circinatus	1
Prurigo	3
Prurigo latens, or itching without apparent lesion	5
Carried forward	663

painful extent by external heat, over-clothing, hot rooms, hot drinks, and over-feeding, by the checking of diarrhœa or of leucorrhœa. Some feel so faint under their influence, that they must have air, or they would swoon. M. C. could drop down with weakness when the flushes came on. Dry heats are morbid flushes. They torment a patient without the subsequent relief of perspiration. The cheeks are not the only parts susceptible of burning sensations. Two patients complained most of the burning of the legs and feet; cold water applications did not much abate the annoyance, and at night they were compelled to sleep with their feet out of bed. Three others complained bitterly of similar sufferings in their hands. The flushes are sometimes preceded by chilly sensations, and some women tremble with internal cold, and continue, for a long time, habitually cold, notwithstanding the flushing of the face, like S. W., who continued in this state for 7 years; she had slight flushes without perspiration, was very nervous, and often fainted. Others feel so cold that they approach the fire, when a reaction soon coming on, they fly to the window. In such cases, the perspirations will be cold and clammy, denoting debility, and the congestion of some internal organ. When the flushes are thus anomalous, they are often preceded by epigastric uneasiness, or by strange sensations, which have been said to resemble "pulses, like a live animal throbbing in the stomach," or "the fluttering of a bird;" sensations which vanish on the appearance of perspiration.

SWEATS.—Perspiration was carried to a morbid extent in 79 out of 500 women, who often complained of heavy perspirations. They were constantly wiping the sweat off the face, their hair was often wet, they were obliged to change their linen twice a day, and although slightly covered, their bed clothes became soaked. Gardanne, Chambon, and B. de Boismont, notice the occurrence of sweats at this period, but the little importance attached to them is shown by the fact,

stitial and molecular combustion of which keeps alive the continuous heat of the body. The relative superabundance of blood is often the cause of the superabundant heat, and therefore of the perspirations, as shown by the case related by J. Frank, of a man who became subject to excessive perspirations after the suppression of an hæmorrhoidal discharge. Diminish the mass of blood by taking 2 or 3 ounces from the arm at successive months, and the sweats will also diminish. The irritability of the nervous system may be relieved by the sedative preparations already recommended. Baths are very useful. They should be tepid, and prolonged for an hour at least. Tissot recommends them highly, and their effects may be increased by the addition of from one-half to a pint of camphorated vinegar. The saline matters, which are otherwise removed by perspiration, must be directed to the kidneys, by giving the salines, as already indicated, the acidulated and effervescing drinks, and small doses of nitre and borax. The Germans give Haller's acid elixir, which is a mixture of equal portions of sulphuric acid and spirits of wine; and Romberg speaks in praise of sulphuric acid, slowly dropped in proof spirits, 30 drops of which may be taken 3 times a day, in an aromatic infusion. The acid. sulph. arom. of the Edinburgh and Dublin Pharmacopœias may be given in water, in 30 drop doses; but all this treatment requires time, and will not satisfy a patient whose cheeks burn repeatedly in the course of the day, and who wants something to give immediate relief. Then a lotion of 1 ounce of cherry-laurel water to 5 of elder-flower, may be tried, or water in which camphor has been allowed to float, or vinegar and water, or water containing 1 or 2 ounces of camphorated vinegar to the pint. Some patients have derived great benefit from using, with the powder puff, one of the following powders, which Mr. Taylor, of Baker-street, makes up, and which he calls "Dr. Tilt's Flush Powders, No. 1 and 2:"—

diseases at this critical period than at any other, though when such disease does arise, it is peculiarly obstinate. Prurigo and eczema he deems the most frequent. Mr. Harvey, in his valuable practical treatise on diseases of the ear,* says, that he has frequently seen eczematous eruption of the auricle, and behind the ear, begin at the c. of life, last for many years, and resist all treatment, until, at last, it disappeared by a spontaneous effort of nature. This has occurred several times in my own practice. Mr. T. Hunt assures me that, judging from private practice, and his numerous patients at the Western Dispensary for Diseases of the Skin, the c. of life has often been followed by acne rosacea, lichen in the face or elsewhere, prurigo, and especially prurigo pudend. mulieb. He says, that chronic, scaly affections of the skin, such as lepra and ptoriasis, which have commenced before this critical period, are unaffected by it, and he has seldom observed cutaneous affections disappear spontaneously at this epoch. In a case where a patient had never before had the slightest rash, the nettle-rash appeared 4 times in the year which elapsed after cessation; I believe it, therefore, to have been caused by this crisis, as in a case of erysipelas seen by Tissot. M. B., aged 50, first menstruated between her 18th and 19th years, with little previous disturbance, and continued regular until 20, when she married. She had 9 children, the last when 44. At 48, she had several floodings, but without much increase of pains in the head. The catamenia ceased at 49; this was followed by no disturbance of health, except by a severe attack of nettle-rash, 3 months after, on the chest and body, which disappeared on the proper medicines being administered; twice, however, it has recurred at irregular periods, and on the 28th of March, 1848, she applied for relief at the Farringdon Dispensary, for a 4th well-marked attack of the

* "The Ear in Health and Disease." By W. Harvey, F.R.C.S. London: Renshaw.

CHAPTER IX.

NEURALGIC AFFECTIONS AT THE C. OF LIFE.

TABLE XXVI.

Liability to Neuralgic Affections at the c. of Life.

Lumbo-dorsal neuralgia	226
Hypogastric pains	205
Monthly hypogastric pains	16
Frequent ovarian pains	5
Habitual dry colics	6
Paraplegia, mild forms of	6
Sciatica	4
Intercostal neuralgia	6
Numbness and loss of sensation in hands and arms	3
Paralysis of arms, hysterical	1
Temporary deafness, induced or aggravated	10
Permanent deafness	1
Odontalgia	2
Brow ague, brought on	1
„ increased	2
Aphonia, hysterical	3
Total	497

Thus, during the c. of life, 497 neuralgic affections were divided amongst 500 women. In after life, these affections become much less frequent, with the exception of lumbo-dorsal neuralgia, which often persists, in a slight degree, until advanced age, and few escape those neuralgic affections of the

ascribe the dorsal and the hypogastric pains each to a distinct set of nerves.

LUMBO-DORSAL PAINS.—These are fugitive in the upper portions of the spinal cord, and principally settle in its lower extremity, radiating to the small of the back, the loins, thighs, and legs. The pain is generally described as an aching or numbing pain, a gnawing, dragging, burning, or grinding pain; a sensation as if the back were broken, or as if it were opening and shutting—varieties of pain, like those of neuralgia in other parts of the body; their intensity varies from that slight pain, which does not prevent moving about, to that which for a time usurps the place of all other sensations, confining women to their beds for a few days. The frequency of these pains is as follows:—

Lumbo-dorsal pains had existed in . . .	70	per cent.
They were augmented at cessation in .	46	„
„ the same	17	„
„ less	7	„
They did not exist in	30	„
	100	

A great intensity of pain in the cerebral and spinal regions is seldom met with at the same time, for the two are in general so counterbalanced, that when a great amount of cerebral symptoms exists, the spinal symptoms have not a similar intensity. During the prodroma of menstruation, and during the "dodging time," the cerebral symptoms are most intense; the spinal symptoms are, in general, more common and annoying during the period of the full activity of the generative function; and at cessation great is the intensity of both modes of suffering.

HYPOGASTRIC PAIN.—This pain is generally referred to the ovarian, and to the uterine regions. It differs from the symptom just described, in being a pressing, forcing, or bear-

pain, sometimes only after taking food, at others without a cause. This has been more troublesome during the past year, and for the last 4 months she regurgitated sour or bitter stuff once a week. She looks vacant, bewildered, and of late has had fainty feelings, and a clammy skin. For the last 2 years there have been frequent pains in the ovarian regions, "as if from the plunging in of a knife," and for the last year intense pains have arisen at the lower part of the back and sacrum; her other sufferings have increased, and have become more frequent. During this time the m. flow has also been irregular, much more abundant, and with scarcely more than 10 or 12 days between the m. periods.

To allay the derangement of the biliary functions was the first indication; the next was to prevent the too frequent recurrence of the m. flow by quinine, adding 6 drachms of tincture of cinchona to the comp. camph. mixture. Two table-spoonsful to be taken 3 times a day. I also prescribed 20 drops of liquor potassæ in a little water, after meals, and at night 4 grs. of blue pill, with 2 of ext. of rhubarb, to be followed by ½ an ounce of castor oil in the morning. An opium plaster to be applied to the pit of the stomach. Feb. 12th.—Ten oz. of blood were taken from the arm. The previous remedies were continued, with the exception of the pills, which were now to be taken only on alternate nights. March 11th.—The m. flow has not appeared for 6 weeks. The food is better digested, but the tongue is still furred, and there is much pain under the left breast and in the left ovarian region. Leucorrhœa is abundant, the os uteri has the usual size, it is painful on pressure, which also increases the habitually felt hypogastric pains. There is no ovarian swelling. Six oz. of blood were taken from the arm. April 21st.—A blister to the left ovarian region only relieved the intense pain for 2 days. Mercurial and ext. of belladonna ointments rubbed in twice a day did no good, so I ordered 20 drops of Battley's solution and 1 drachm of tinct. of hyos-

cyamus mixed in a little warm milk to be injected once a day into the rectum. May 20th.—The sedative injections have given great relief. The m. flow came without much pain after an interval of three weeks. There is still intense pain in the back. On again examining the patient I can find no organic uterine disease. The pains are caused by the cessation of the uterine function in a woman whose nervous system has been shattered for the last 5 years. July 22nd.—The m. flow came after an interval of 10 weeks. The patient is again very bilious, and is ordered the blue pill and previously named remedies; 4 oz. of blood are to be taken from the arm. November 1st.—The biliousness has gone, the sedative injections control the intense pains; the head symptoms are better. The m. flow has again appeared after an interval of 13 weeks. When I lost sight of the patient her condition was much improved by 10 months' treatment, but the dodging time was probably not over, and in all likelihood will still render her a great sufferer.

TREATMENT.—Besides the general principles of treatment, there is a distinct indication to use sedatives until the habitual pains are assuaged, and they may be continued for weeks without ill effects. Soothing liniments may be rubbed in night and morning; I mean camphorated liniment, with the addition of tinc. of opium, belladonna, hyoscyamus, separately or combined, as the case may suggest. Soft opium or belladonna plasters may be applied and renewed every 4 or 5 days. Linseed-meal poultices sprinkled with camphor, mustard poultices, and even blisters, should be tried. The wadding poultice, or the soft side of a sheet of wadding pulled asunder, and applied to the abdomen alone, or previously sprinkled with a few drops of the spirits of ammonia, or soluble camphor, gives great comfort, and sometimes it is good to place the lower part of the pelvis in a kind of permanent vapour bath by surrounding it with oil silk applied next to the skin.

PARAPLEGIA.—Gardanne mentions having seen paraplegia occur after the sudden cessation of the m. flow, but he gives no details. The 6 cases observed by myself were of a mild nature, and all recovered. There were pricking sensations in the feet, numbness of the lower limbs, great pain in the dorsal region, and an inability to walk. Three complained of a difficulty in passing water, and of a loss of sensibility in the skin of the lower limbs. Similar cases have been met with by Dr. G. Bedford and B. de Boismont. In infants, paraplegia generally depends on intestinal irritation; in adults, on vesical or uterine affections; and in old age, it appears as an idiopathic disease. Paraplegia is rare at the c. of life, though more frequent than is supposed. It occurred in 2 out of Dr. R. Leroy d'Etiolles' 12 cases, and on careful inquiry at the Salpêtrière, where there is a great number of paralytics, many of the patients dated their complaints from the c. of life. Most of these sufferers might have been cured in the early stage of the disease, when it depended upon congestion of the spinal marrow; but, subsequently, atrophy of its lower portion prevented the possibility of cure. In my cases, there was no organic uterine disease to account for the paraplegia; but in one of Dr. R. Leroy d'Etiolles, there was considerable swelling, and abundant leucorrhœa, and the patient could not walk without several attendants. Iodide of potassium cured the uterine hypertrophy, and the paraplegia disappeared. The following case is related by Ollivier d'Angers; it is interesting to find so distinguished an observer faithfully noting, although without recognising their import, the ganglionic symptoms which play so prominent a part in the case.

CASE 27.—*Frequent attacks of paraplegia, with ganglionic symptoms.*—A lady, aged 49, in whom the m. flow had been very irregular for a year, every now and then, without ascertainable cause, had the following train of symptoms, whether in bed, up, reposing, walking, eating, or fasting. There was constriction in the epigastric region, with or without sensations of

suffocation, which sometimes awoke the patient suddenl
Then came flushing of the face and head, and afterwards burn
ing sensations in the upper part of the spinal column, with pai
and numbness in the arms, which became partially paralyse
This lasted for about an hour, when cold perspirations ap
peared ; she then felt as if cold water were poured down he
back, and her lower limbs became paralysed. This temporar
paralysis has often occurred so suddenly, that the patien
taken unawares, has fallen down. In about three quarters o
an hour, these symptoms disappear, without leaving any trace
but they may recur from 3 to 5 times in one day, and o
several successive days previous to the m. flow, and about 1
days after, during which time constipation is great, and urin
more frequently passed, with tenesmus. Leeches repeatedl
applied opposite to the painful part of the spinal column
tepid baths and purgatives, greatly diminished the frequenc
and intensity of the attack, and the m. flow became mor
regular. A blow to the pit of the stomach determine
general paralysis; and here, the womb, after its fashion, gav
a shock to the nervous ganglia at the pit of the stomach
which reacted on the spinal marrow, and caused paralysis o
the limbs. In remarking on this case, Ollivier d'Angers insist
on the necessity of applying the leeches to the spinal column
asserting that the same effect would not have been produced b
applying them to the pudenda; but the position is disprove
by the following case, which occurred in the practice of a
medical friend :—

CASE 28.—*Permanent paraplegia.*—A lady's-maid, age
45, complained of violent pain in the loins, for which a
mustard poultice was ordered; and, as the pain persisted, a
blister was subsequently recommended to the lumbar region
This application was soon followed by paraplegia, and a
neighbouring practitioner gave, as his opinion, that the appli
cation of the plaster had determined the paralysis of the
lower limbs. Although this assertion was contradicted by

another medical man, who was called in on account of the persistence of the paraplegia, my friend received several letters from the solicitor of the family, menacing him with an action; but he set them at defiance, and he heard nothing more of this attempt to make a medical attendant pay for an occurrence which it was impossible to foresee. The patient went home to her friends, and a country practitioner, more clear-sighted in this instance than the eminent men of town, putting together the circumstances of the patient's age and the previous irregularity of menstruation, applied leeches to the womb. The result was a gradual diminution of the paraplegia, and she was soon able to walk with perfect ease.

TREATMENT.—In how many cases, where paralysis was supposed to be caused by inflammation of the spinal marrow, have the backs of delicate patients been uselessly tormented by blisters and moxas; whereas, the special treatment should be directed to whatever organ, womb or kidney, may cause the paraplegia. I have seen admirable effects from the use of the hot mineral waters of Aix en Savoie, and great good is sometimes done there by parboiling the powerless limbs, the patient being placed in a bath, in and out of which hot water is continually flowing. Shower baths and douches of hot spring water will be found useful; and shower baths of water, alternately hot and cold. Such appliances, irrespective of sex, are valuable, not only in paraplegia, but in all chronic, local paralytic affections, which seem to depend on some obstructed circulation of the nervous fluid. When the patient cannot leave home, benefit may be derived from stimulating baths, the attendant emptying into the water a bottle containing 6 ounces of liquid ammonia, and 1 of camphorated alcohol, adding from 2 to 4 lbs. of common salt. On leaving this bath, the limbs should be rubbed for 20 minutes with the hand; and camphorated ointment may be used.

SCIATICA.—From 4 cases, I have selected one which forcibly shows the utility of sudorifics in diseases of the c. of life.

CASE 29.—*Sciatica at the c. of life.*—Jane A., aged 40, with dark hair, grey eyes, small stature, nervous constitution, and slender make, was admitted at the Farringdon Dispensary, Feb. 8th, 1851. After having suffered 2 years with violent headache and giddiness, she first menstruated between 15 and 16, and continued regularly to do so very abundantly. She married at 16, became pregnant immediately; had 7 children, the last in her 26th year; was always regular until she quickened, and in 3 pregnancies she menstruated regularly up to the period of parturition. The previous summer, she was treated, at the Royal Free Hospital, for rheumatic fever. Menstruation proceeded regularly during the patient's stay at the hospital, appeared 4 times after her return home, and then stopped—a circumstance which made her believe herself pregnant. She complained of an intolerable pain in the left lower limb; and, on examination, I found that pressure on the spine did not increase or cause the pain. To all appearances, the left limb was as sound as the right; and the pain was said to arise from before the great trochanter, and to gain the back of the limb, following the course of the great sciatic nerve and its subdivisions to the toes. The pulse was weak, the urine clear, and of the usual colour. I ordered a blister to the spot which was the most painful, pills of compound extract of colocynth, and a sedative mixture. The blister did not relieve the excruciating pain. Turpentine embrocations were added, the other measures continued, and the blister repeated, without the least benefit. March 8th.—The patient suggested that her pains might have been caused by the sudden cessation of menstruation 5 months previously. On learning that she had lately had flushes and nightly perspirations, never experienced before, I ordered her to take, as an emetic, 1 scruple of ipecacuanha with 1 gr. of tartar-emetic, to continue the mixture and the pills, and to take a tea-spoonful of flower of sulphur in milk on going to bed at night. 15th.—The heats and perspirations had increased;

the pains had much abated. I ordered another emetic, and continued the other measures. 29th.—The pain is very trifling, and the heats, flushes, and perspirations, are more frequent, coming on, not only on exertion, but in bed, at night, and in the morning. April 6th.—I ordered, sulphur, 2 oz.; bi-carbonate of soda, 4 drachms; and 2 scruples of ipecacuanha —a tea-spoonful to be taken in a little milk every night. June 11th.—She has had no return of pain; but in the absence of flushes and perspirations, she suffers either from headache or from the sensation of "something working" to bring on the pain in the leg. It is now more than 10 months since she menstruated. Jane A. has not suffered in any other way from cessation; and as she was subject to a copious discharge every month, one can understand that she should feel the effects of its sudden cessation; and as in her constitution there was a great predominance of the nervous system, it is not surprising that it bore the brunt of the sudden shock, particularly that portion which was predisposed to illness by the previous attack of rheumatism. I saw this patient again in 1855; there had been no sciatica nor return of the m. flow, and her health had improved.

Gardanne mentions, that a woman of a strong constitution, at her 45th year, suddenly ceased to menstruate; and was at the same time seized with violent pains in the left thigh, and at the end of 4 months, was not able to move the limb. As she had suffered from syphilis in her youth, mercurials were given, but without effect. Sabatier and Gardanne then advised moxas to be applied to the leg, which produced slight fever and great perspiration, but restored the use of the patient's limb.

CASE 30.—*Cardialgia and reflex intercostal neuralgia aggravated by the c. of life.*—Mrs. K., aged 42, consulted me, July 5th, 1855. This lady is stout, of an average height, with dark hair and eyes, a swarthy complexion, and has all her life been subject to bilious complaints. The m. flow first

appeared, with frequent fits of fainting, at 12. It conti
regular, and was often accompanied by brow-ague.
married at 27, but never conceived. In 1848, after ha
been a year at Ceylon, she was first taken with excruci
pains in the dorsal region of the spine, and in the abdo
which pains always came on at night. She improved un
mercurial treatment, had the Bombay fever the following
but came home recruited by the long sea voyage.
years after her return, the m. flow became irregular, and
she never passes more than a little green water for one
Since the m. flow became irregular, she has been always
ing; was once under Mr. Keate for an hysterical affecti
the shoulder-joint and paralysis of the arm, and has often
attacks similar to those she had at Ceylon. She stated,
every night she was awoke by an acute,'" gnawing, hot p
about the 5th dorsal vertebra. This pain encircled the
side, reached the pit of the stomach, where it centred
kept tearing and gnawing her for about 2 hours. The pa
very graphically described the sudden coming of the atta
"as if the thing called pain played a thumping overture
her." She has learned to relieve these attacks by lauda
In their absence she is very often troubled with a bur
pain at the pit of the stomach; and of late, when the pai
intense, she has often fainted several times a-day. This
though stout and healthy-looking, is endowed with a
sensitive nervous system. She feels every change in
weather, and suffers acutely when there is thunder in the
She is often heavy, stupid, drowsy, and forgetful: very
spirited, thinks she is going out of her mind, and is
tempted to commit suicide. For the last 2 years she
been much troubled with flushes, but without perspirati
and circulation is inactive, for her fingers are cold and
even on a warm summer's day. The pulse is small, the to
slightly furred. July 5th.—I prescribed the comp. ca

mixture before meals, the carbonate of soda after; 6 grs. of blue pill, and 2 of ext. of hyoscyamus every other night, 10 grs. of Dover's powder every night, a scruple of the sulphur, a borax powder twice a-day, and warm baths as often as they could be taken. July 18th.—Decided improvement followed the sound sleep which came when the treatment had been followed for a few days; the paroxysms of neuralgia were no longer periodical, and she had only had two since the 10th. I continued the same treatment, but also ordered 2 belladonna plasters, one to the epigastrium, the other to the painful part of the spine, which were to be renewed every week. Aug. 15th.—The patient being very bilious, I ordered 3 grs. of cal. every other night, and a black draught in the morning; the mixture, the soda, and the Dover's powders were continued. She was salivated by 2 of the pills. Sept. 19th.—The paroxysms of pain returned again every night; so I ordered the sixth of a grain of acetate of morphine to be taken in a mixture, every two hours, until sleep was induced. This procured 14 hours of sound sleep, and the attacks only occurred at long intervals. When I last saw the patient, I advised her to take the c. camph. mixt. and the Dover's powder occasionally, and every night to take a drachm of sulphur and magnesia, inducing narcotism with acetate of morphine, whenever an attack of intercostal neuralgia threatened. Her nervous system was too sensitive to admit of permanent health, particularly as the acuteness of its susceptibilities were constantly sharpened by her anxiety for a very nervous husband. The irregular performance of the m. function also fretted the nervous system. One point to be remarked in this case is, that the frequent flushes were dry and burning, being unrelieved by perspiration. Gentle perspirations coincided with the improvement in the symptoms, and their persistence afforded the greatest chance of immunity from worse symptoms. This patient had been fearfully nervous all

her life, without ever having presented any of the forn hysteria, so varied are the states of nervous suffering many of which there is no name.

In four other cases, cessation was followed by interc neuralgia; in one, a lady sent to me by Mr. Trotter, of S ton, remarkable for her portly and healthy appearance, l ing as if she could not be nervous, was never hysterical cessation took place; after which she became habitually table, nervous, fearful, with frequent globus hystericus, intense mammary and intercostal neuralgia.

NEURALGIC AFFECTIONS OF THE EYES.—In two wo at the c. of life, I have noticed the head symptoms t accompanied by marked photophobia, and many pat complained of an unusual dimness of sight, which wore o the abeyance of pseudo-narcotism, and other head sympt H. D., aged 50, and chlorotic-looking, has been irregula the last 6 months, and suffers much from intense deb even after a full meal. She can scarcely keep herself a during the day, and at night is kept awake by a dull, h pain in the eyes, lasting more than two hours, the prol cause of which being that she has lately worked too ha embroidery. B. de Boismont gives the case of a woman at 45, was blind for 3 days; Boyer rightly judged th depended on the c. of life, and on recovering her sight remained subject to giddiness. Dusourd met with 3 w who were blind for 2 or 3 days at the c. of life, and h several times observed them affected with hemeralopia Romberg erroneously considers women predisposed to a rosis at the c. of life.

DEAFNESS.—When deafness occurs at the c. of life it sh not be considered senile, for it may depend upon inflamm affections of the external canal, or upon the eczem thickening of the tympanum, as in a lady recommende me to Mr. Harvey, of Soho-square, who rapidly and effect cured her of an infirmity which had lasted more than a

Deafness at this epoch is, in general, purely nervous, attending on pseudo-narcotism; the patients being, as it were, stunned, do not hear until they are fully roused from their state of torpor. I have seen this deafness appear and disappear suddenly; in one case it came on suddenly at cessation, when flooding abated about 6 years ago, but the deafness continued ever since; and I have known women driven to desperation by continued noises in the ear, which sometimes baffle all treatment. M. S., a dispensary patient, aged 52, never had a day's illness until 45, when she saw a man executed. Flooding then came on, the m. flow never reappeared, but loud and continued noises were constantly heard, which Mr. Harvey did not attribute to a diseased condition of the internal ear. They resisted cupping, blisters to the nape of the neck, and other treatment. In a very nervous lady, sent to me by Mr. Harvey, erysipelas of the face occurred at the c. of life, and left an excruciating pain, sometimes accompanied by a most annoying "forcing sensation" behind the ears. This had lasted for three years, but it yielded to my general treatment, and to the local measures necessary to cure uterine irritation.

NERVOUS APHONIA.—This is a rare affection, but I have had a good opportunity for studying a case occurring in my own connexion.

CASE 31.—*Frequently-recurring aphonia.*—A lady, at the c. of life, after losing her husband, came to town, and settled in Belgravia. Though she had not hitherto been subject to nervous affections, cold, over exertion, worry, or sometimes no apparent cause, would suddenly deprive her of her voice for a few days. The nervous nature of the ailment was shown by the sudden coming and leaving of the aphonia, and by the effect of change of air; for a drive in the Regent's-park or to Hampstead would often restore her voice to its natural tone. She therefore left town to reside in the country, and has since enjoyed a comparative immunity from

CHAPTER X.

DISEASES OF THE GANGLIONIC NERVOUS SYSTEM.

TABLE XXVII.

Liability to Diseases of the Ganglionic Nervous System in 500 *Women at the c. of Life.*

Epigastric faintness and sinking	220
Epigastric pain or anomalous sensations	49
Fainting or leipothymia	25
Fainting off for the first time in life	3
Prolonged and intense debility	41
Monthly depression of strength	1
Chloro-spanæmia	40
Palpitations	16
Aortic pulsation	2
Hysterical asthma	7
Monthly hysterical asthma	2
	406

Thus 406 women out of 500 suffered more or less from diseases of the ganglionic system. The liability to these affections decreases in advanced life; epigastric pain is then seldom intense, but there frequently remains a liability to fainting, and to the sinking sensation at the pit of the stomach. On the whole there is a great increase of constitutional stamina until advanced age, when progressive debility and gradual decay occur from the exhaustion of innate power. The ganglionic nervous system, in a pathological point of view, is generally looked upon as a *terra incog-*

nita; and the subject is overlooked or very incompletely considered in systematic works on pathology, and it is scarcely better treated in books on nervous diseases. Thus, notwithstanding Lobstein's classic work, Georget, writing in 1836, affirmed, that nothing is known about the diseases of the solar plexus, or the ganglionic system of nerves, and, in describing gastralgia, he jumbles together the symptoms of pyrosis and dyspepsia with those arising from disease of the epigastric nervous centres. Sir H. Holland says, "that the ganglionic system, and the various nerves of organic life, are still only partially known to us in their proper actions, and yet more obscurely in their intricate connexions with the *nervous powers of animal life;*" and if this eminent pathologist is to be believed, "a less definite influence of the system of organic life, as one of the causes of exhaustion," is the only morbid liability of this all-pervading nervous system. It is not surprising, however, that the pathology of the ganglionic system should have been hitherto imperfectly considered, since its physiology is full of desiderata, and even its anatomy is still a subject of endless contention. The experiments lately performed by my friend, Claude Bernard, promise to lead to a more correct pathology of this system; and in some interesting papers on malaria, recently published by Dr. Handfield Jones in the *Association Medical Journal*, he has shown that the experiments alluded to, and repeated by him, establish that the partial paralysis of the ganglionic nerves leads to the congestion or to the inflammation of the tissues within the area of their distribution, and that the partial paralysis of the whole ganglionic system is an important element of fever, whatever type it may assume. Having thus indicated the extent of which the inquiry is susceptible, I now proceed to sketch the *neuralgic* affections of the ganglionic nervous system.

On taking a comprehensive review of the various stages of the reproductive process in women, I am struck with the

frequent prostration of strength being a predominant symptom even when women are in health. At every recurring m. period, at the cessation of menstruation, after connexion, parturition, and during lactation, there is felt, more or less, a loss of energy;—so it seems as if woman could not pass through any of the stages of that function which serves to communicate life, without the momentary loss of some portion of her own vital energy, reminding one of those animals who die when once they have transmitted life to others.

Et quasi cursores vitæ lampada tradunt.

A glance at the preceding table will show that debility of variable intensity is the constant character of the complaints which I attribute to the diseased action of the ganglionic system. I shall briefly notice, I. Debility; II. Syncope and Leipothymia; devoting more space to III. Cardialgia, and IV. Chlorosis.

I. Debility.—This condition underlies all other ganglionic affections, in the same way as nervous irritability underlies all cerebral diseases. Debility existed in a marked degree in all the cases enumerated above, although it was only marked intense and prolonged in 41 instances, where it did not seem to depend upon any other cause than the c. of life. Sometimes there was an overpowering sense of exhaustion equally pervading the whole system; thus 41 women, of previously active habits, deplored being rendered helpless by intense and long-continued debility. A. M., a hard-working woman, says, "she hardly knows how to dress herself, and is often obliged to lie down to recover herself." M. W., a thin, delicate, red-haired woman, aged 45, two years ago got her feet wet at a m. period; the flow stopped; there were great abdominal pains, and a state of intense and long-continued prostration, without any other cause than the c. of life. In others, the debility is so rooted in the system, that a full meal or stimulants will not dispel it. There is only a diffe-

rence of degree, none of nature, between this thorough exhaustion of radical strength, and its slight manifestations, so frequent at this period, which seem to originate from the pit of the stomach. This epigastric faintness occurred in 220 out of 500 cases, and is one of the most frequent of the minor torments to which women are subject. Pathologists have noted the severe cases of disease of the ganglionic centre, but they have failed to see the connexion between these and its milder forms, which occur habitually; whereas, between the severest of my 49 severe, and the slightest of my 220 mild cases, I only see a difference of degree, none in the nature of the complaint, which is as variable as the ever-varying shades of the same colour. The symptoms are described as "a sinking and faintness," "faint heats," "or a dull, sickly feeling at the pit of the stomach;" and the sensations are compared to those of "hunger, or to the craving of the dram-drinker after his wonted stimulus." Others feel "as if they could faint," as "if they wanted support," as "if they had no inside," as "if there was a vacuum." They will not allow the sensation to be called pain, but speak of its being so irritating and irksome that it is worse to bear than pain. They will frequently say that "all the complaint lies in the chest," but they point to the pit of the stomach, and have not a single symptom of chest disease. These sensations may be the harbingers of others that obscure them, such as heats, perspirations, diarrhœa, bloody stools, and globus hystericus. When debility is intense it passes by a gradual sliding scale into the state called leipothymia by the older writers, and may end in the total extinction of vital power.

II. SYNCOPE AND LEIPOTHYMIA.—Fainting is generally considered synonymous with syncope, whereas *syncope* is the failure of the heart's action, *fainting* is the great loss of ganglionic power, determining loss of consciousness; while *faintness* is the temporary depression of ganglionic power, consciousness being unimpaired. It is true that fainting and

syncope often coincide, and produce each other; though in some of my severest cases of cardialgia, I have seen fainting occur, consciousness lost, and respiration imperfectly performed, while the heart's action was undisturbed. Dr. Copeland has already noticed this fact, and states, that in similar cases, he has even sometimes found the pulse to indicate bleeding. By *fainting*, I understand the "deliquium animi," or the "defectio animi," of Celsus, the leipothymia of Sauvages, whose definition is true to nature—"Subitanea et brevis virium dejectio, superstite pulsus vigore, et cognoscendi facultate." Syncope is rare at the c. of life, whereas a frequent liability to fainting occurred in 25 out of 500 women. M. S., aged 47, frequently fainted from slight exertion at this epoch, but never swooned before cessation. S. A., a strong-looking woman, aged 40, 6 months after cessation, was obliged, for the first time in her life, to give up work, because exertion brought on fainting, and irksome sensations of a load at the pit of the stomach. She has several times fainted off for three quarters of an hour. She is relieved by passing wind, is not dyspeptic, but nervous, and has globus hystericus. M. G. never fainted in her life until the dodging-time, and then fainting fits occurred 2 or 3 times a week for 3 years. A. L. frequently fainted before first and last menstruation, and during each m. epoch. C. S. had repeated fainting fits in the year following cessation. B. de Boismont has noticed fainting at the c. of life, but he has not connected the comparatively rare cases of fainting with faintness, and the debility so often complained of; but I consider fainting to be linked, by insensible gradations, to the slightest sensation of epigastric faintness. The preceding considerations may throw light on some cases of sudden death, insufficiently explained by *post-mortem* examinations. Those who have written on ague have noted the paralysing influence of paludal miasma over nervous power. Sir G. Blane relates how the Walcheren patients, when in full convalescence,

would unaccountably drop down dead; and in the hosp
of San Spirito, at Rome, I have seen a man, recovering fr
pernicious fever, expire suddenly, without any *post-mort*
appearances being found to explain the cause of de
Cases of sudden death in puerperal women, already in
convalescence, seem to me susceptible of being accounted
by the previous observations. A tall, thin, pale-faced, flax
haired, inanimate lady was confined, and was doing so v
that her accoucheur had ceased his daily visits, when,
sitting up to take her usual food, she fell back, and sudde
expired. Nothing was found to explain this event, bu
somewhat flabby state of the walls of the heart.

In advanced age all the ganglionic nervous affections ab
except debility, which goes on gradually increasing until de
occurs from the extinction of that amount of power allot
to the ganglionic system. Sometimes, however, death occ
suddenly in the midst of comparative strength, without
being accounted for by the most careful examination of
body, and then I believe it may be caused by some spontane
shock to the ganglionic centre, similar in effect to a blow
the pit of the stomach; the gastric irritation caused by
masticated food, possibly had this effect in some cases
syncope senilis, as suggested by Mr. Higginbottom.

III. CARDIALGIA.—The minor forms of this affection
very frequent, and its severest not uncommon; but I inte
to illustrate its Protean nature by cases remarkable for th
severity or their singularity. Pain at the pit of the stom
was the prominent symptom in the two following cases:—

CASE 32.—*Cardialgia caused by the c. of life.*—Miss
consulted me in 1855. She was 48, tall, stout, with a flush
face, and dark hair. The m. flow came regularly from 13
47, but afterwards irregularly, being often a mere show. T
patient was never nervous or hysterical; she complains
pain at the pit of the stomach, which first appeared when
m. flow became irregular, and says that she is never with

uneasy sensations at the epigastric region, which do not generally interfere with the current occupations of the day, though often paroxysms of acute pain occur, especially at night, when they suddenly awaken her from a sound sleep. The pain then experienced is described as a "tearing pain," and after it has lasted from 10 to 20 minutes, a ropy mucus comes from the mouth, by expuition, without eructations. When the intensity of the pain has abated, the patient lies prostrate for hours, conscious, but incapable of exertion. Sometimes she faints away, and after a bad attack was forced to keep her bed a day or two. During the last 6 months, flushes and perspirations have been abundant. On examination, I found no tumour of the stomach. I recommended 8 oz. of blood to be taken from the arm, the comp. camph. mixture before, and the carb. of soda after meals; 2 comp. col. pills and 10 grs. of Dover's powder on alternate nights, and a mustard or a linseed poultice to be applied to the pit of the stomach every night. After continuing this for a month, the paroxysms came only once a week instead of almost every night; I then ordered a warm bath to be taken for two hours every other night, just before going to bed; a rotation of belladonna and opium plasters, changing them every week, and a scruple of sulphur once a day. This was persisted in for 6 weeks, and then left off, because there had been no paroxysms for 10 days. When the patient left town, I advised her to continue taking the mixture now and then, as well as the pills and the comp. sulphur powder, and to have 2 or 3 oz. of blood withdrawn three times at intervals of 2, 3, and 6 months. This case seems to me best accounted for by admitting a neuralgic affection of the ganglionic nervous centre, for the stomach was blameless, and performed all its functions healthily, and there was no sign of cerebral disorder, neither did this affection obscure the comprehension of its true nature by awakening other nervous disorders. It caused no hysteria, no pseudo-narcotism, not even headache.

This neuralgia of the ganglionic centre was well characteri
by the paroxysmal character of the pain, and by the state
exhaustion and faintness it determined.

CASE 33.—*Cardialgia at the c. of life.*—Eliza P., aged
tall, slender, dark hair, hazel eyes, and a nervous appearan
Menstruation, after 3 months of pseudo-narcotism, appea
between 13 and 14. Regular from the first, the m. flow ca
without pain. She married at 16, had 7 children, and m
struation ceased, with a terminal flooding, at 44, after
months of m. irregularities. The previous year she had be
troubled with nervous symptoms, followed by copious hæn
ptysis, which relieved her. She now often suffers much fr
faintness, flushes, perspirations, and lately, in a slight degr
from bleeding piles. She looks exhausted, stupid, bewilder
and says, that for the last few weeks her head has been "
heavy as lead," with noises and great giddiness. Every n
and then she feels a burning heat run across the chest throu
the body, and then follow profuse warm perspirations fr
the chest only. She compares her sensations to those
which the hæmoptysis was preceded. I first saw her
April 3rd, 1850, when I ordered the same treatment as to t
former patient, with the exception of 6 drachms of tincture
henbane to the 6 oz. mixture, of which a table-spoonful was
be taken 4 times a day. I also ordered a large plaster
opium and camphor to be placed over the pit of the stoma
and the lower part of the chest. 7th.—Much better, b
weak, the pains in the chest are removed. A slight vesicul
eruption has appeared on the back of the left hand. S
fainted twice yesterday, so that I added to the mixture 1
of nitric ether, and in other respects continued the sa
treatment. 24th.—She looks quite another person, wal
firmly, and only feels the pains and noises in the head at ra
intervals. For the last few days the whole skin has been
a state of perspiration. June 12th.—The patient is ve
well; the pains in the head have almost entirely left h

and she has grown stouter. Sept. 8th.—Since I last saw her, she has been remarkably free from chest pain and headache. There has been no m. flow; but after hearing of the sudden death of a son, she had a severe attack of diarrhœa, and is now very nervous, and can scarcely walk for a numbness in both lower limbs. I repeated the comp. camph. mixture, and ordered an opium plaster to be applied to the pit of the stomach. I saw her again two years after; her health was good, but there had been no return of the m. flow.

In other cases, it is not from intense pain that the patient suffers, but from annoying and singular sensations, and as these do not depend upon any organic affection of the heart or the aorta, and coincide with other nervous symptoms of cessation, it seems fair to ascribe them to some morbid condition of the ganglionic nervous centre. The following cases will explain my meaning.

CASE 34.—*Cardialgia with anomalous epigastric sensations caused by the c. of life.*—Sarah B., tall, stout, and healthy-looking, with broad features, brown hair, and hazel eyes, was 47 when she came to the Paddington Dispensary, Sept. 8th, 1849. The m. flow first appeared at 17, was always regular, and accompanied by pseudo-narcotism. She married at 25, had 2 children, and the m. flow left suddenly, without known cause, at 44. Since then, she has been entirely free from lumbo-abdominal pains, but has suffered much from nervous symptoms. There has been no headache, but a heavy, stupid feeling in the head, with drowsiness in the day, after sleeping well at night, and a forgetfulness of familiar things. She has also been nervous, desponding, and low-spirited; often shedding tears, and complaining of strange sensations in the throat. Ever since cessation, she has been distressed by a fluttering at the pit of the stomach, "as if something were perpetually swinging within her." It becomes worse after meals, generally abates when she lies down, is seldom felt when in bed, but begins so soon as she rises. When turning the

stomach. Nov. 6th.—She looks cool and comfortable, much stronger, and quite like another person. Though less troubled by the swinging sensation, it still exists. The blister did little good, so I ordered a rotation of belladonna and opium plasters, each to be worn a week on the epigastric region, and the mixture and comp. sulphur powders to be continued. Nov. 23.—The patient was discharged cured; she felt no epigastric sensations, and was very comfortable and happy.

The same measures were equally successful, in the following similar cases, which also occurred in Dispensary practice. If these anomalous symptoms only occurred in those who have plenty of time to watch the coming of each new pain, and to nurse it until it has taken root in the system, I should lay little stress on such cases; but when they occur in the sturdiest of Eve's daughters, hard-working women without imagination, I look upon the symptoms as indicative of local disease, and not of mental delusion. A strong-looking washerwoman, aged 47, mentioned to me that, after the m. flow had ceased for 6 months, she was, for the first time in her life, obliged to give up work, because exertion caused dreadful pain at the pit of the stomach, and fainting fits often prolonged for three quarters of an hour. Because these symptoms cannot be thoroughly explained, are they to be treated as nonsense? Mrs. W. ceased at 56, and is now 59. After mental excitement, during the last year, she has been subject to aching pains at the pit of the stomach. She sleeps well until 5 A.M., and then arise epigastric sensations, as if something were turning in the stomach. This was followed by palpitations. She has no dyspepsia, but feels nervous, frightened, cannot cry, and, like the "Wandering Jew,"—"she must march on." Belladonna plasters entirely removed the epigastric sensations in a month, but she remained still nervous. Many patients, similarly afflicted, complain of the epigastric region being "all of a boil," and that any sudden impression sets the stomach "all of a flutter," with great subsequent weakness.

CASE 35.—*Cardialgia, with anomalous epigastric sy toms, caused by cessation.*—Sarah J., an average-sized wor with dark-brown hair, grey eyes, and a semi-chlorotic c plexion, came to the Farringdon Dispensary, February 2 1853, being then 46, and unmarried. The m. flow appeare 16, and continued regular, without any nervous or other sy toms, except that, for 2 or 3 days, it was almost always ceded by the eructation of acid water. Flooding came onse months ago, without any known cause, and the m. flow has si appeared every 6 or 8 weeks, varying in quantity, and be accompanied by abdominal bearing-down pains, by sev and sometimes sick headaches, but she has brought up m less acid water. She has suffered from lowness of spi involuntary tears, choking sensations, gasping for breath, a sensation of fluttering at the pit of the stomach, which compares to a steam-engine pumping up something from stomach to the head, inducing headache and giddiness. Th sensations do not always exist, appearing when she down, so she sleeps propped up in bed. When the att comes on, it seldom lasts more than half-an-hour, the night is restless, and the following day she sleeps a g deal in her arm-chair. On careful examination, I co detect no disease of the heart, no aortic pulsation, no si of gastric disorder, and this patient had no flushes or spirations. I ordered the comp. camph. mixt. before, and carb. of soda after meals, 10 grs. of Dover's powder at ni a scruple of the sulphur and borax powder twice a da belladonna plaster to the pit of the stomach, and 2 co col. pills to be taken occasionally. This treatment was tinued 3 months, and completely cured the symptoms. patient then became regular, and continued so for 6 mon when the m. flow ceased suddenly. She was then m troubled by great debility, headache, giddiness; and for last year, has been subject to flushes and perspirations, the epigastric annoyance has not returned.

CASE 36.—*Cardialgia, with anomalous epigastric sensations, caused by cessation.*—Mrs. S. consulted me in 1854. A short, stout lady, aged 49, with a florid face, dark hair, eyes with a wild expression about them, and an excitable manner. The m. flow appeared at 18, and continued regular, though scanty, until she married at 23. She had hysterical attacks before marriage, and became very nervous after, for she could seldom suckle either of her two children without having laughing or crying fits, and aphonia lasted for months during both pregnancies. Thus she continued until 6 months since, when the m. flow became irregular, very scanty, and was preceded, for a few days, by black motions containing a small quantity of blood. She was sometimes sick, but only vomited white froth, and complained much of flatulence and a gnawing, burning sensation at the pit of the stomach, which often made her faint away. The wind she described as "inexhaustible," and confirmed her statement by a pretty good specimen. The tongue was not furred, and the digestion good. The spasms, as she calls them, the epigastric pain and flatulence, awake her at night from a sound sleep, and she starts up and screams. I ordered the comp. camph. mixt., adding a drachm of chloric ether to each oz.; 30 minims of liq. potass. in a little barley water after meals, and oftener, if flatulence were troublesome; ¼ grs. of blue pill, and 2 of ext. of hyoscyamus, with 2 of ext. of gentian every other night; and the following morning 1½ oz. of decoction of aloes. A mustard poultice to be applied, every other night, to the pit of the stomach, and a warm bath to be taken for an hour at least every other day. At the end of a fortnight there was great improvement in the patient; less nervous excitement, less ganglionic pain, and less flatulence. I then ordered the pills and draught to be taken only once a week, the comp. camph. mixt. before, and the alkaline drops after meals; 10 grs. of Dover's powder every other night, a scruple of the sulphur and borax powder once a day, for the skin had afforded no

relief to the circulation, there being neither flushes nc spirations since the flow had become irregular; and and belladonna plasters in rotation to the pit of the st a fresh one every week. I also recommended 3 oz. of to be taken from the arm every second month. This ment had the desired effect, for there had been no when I last heard from the patient, though, with nervous system, a relapse is always to be feared.

Phœbe M., aged 56, has been unusually weak for t 5 years, ever since cessation. She says she is trouble "inward hysterics," and "faint heats." There is no pulsation to be detected, but the least thing bring violent abdominal beating, and causes her to pass three liquid stools, blood from the bowels, or from pil times she loses her sight, and cannot sleep. Flushes ar rally preceded by heat, pain, or faintness, at the ep region, and the sensations have been described by pat "a ball of fire," or "gnawing, tearing pain," relie pressure, and prompting the sufferer to turn on her s to press the painful region. Whoever has seen patie fering from lead colic will recognise in these symptom of that affection.

The following case is that of a lady, who wrote to me from Wales, at the suggestion of Dr. Roeser, phys Otho, King of Greece :—

Case 37.—*Cardialgia with long-continued intens lity.*—A widow lady, aged 54, was regular until 41, w m. flow ceased suddenly from being frightened at lutionary tumult at Athens. She then became fre subject to headache and bilious vomiting, which ab her return to England, in 1853. In 1855, the l vomiting completely ceased, but was soon succee other sufferings. After the subsidence of headache, a peculiar faintness at the pit of the stomach, wh cannot describe, but which so exhausts her strength, t

is confined for days to her bed. An intelligent practitioner called the complaint "a nervous affection of the diaphragm," and aperients, tonics, and stimulants, with blisters to the pit of the stomach, were tried ineffectually. Sedatives, given as in the previous cases, relieved this patient, notwithstanding ever-recurring domestic annoyances.

In the following cases the difficulty of breathing from a reflex spasmodic contraction of the diaphragm and intercostal muscles was a predominant symptom. The first is that of a lady, sent to me by a Northampton practitioner.

CASE 38.—Miss O., tall, stout, of a sanguine temperament, was 57 years of age. The m. flow came at 13, and was regular until 50, when it ceased gradually. Until then she never had any serious illness, and no marked hysterical symptoms, though she was always very excitable. Just before cessation she had the shingles, and soon after erysipelas, but with the exception of flushes and gentle perspirations she remained well for 2 years. Five years ago, Miss O. came to see the Great Exhibition, and, without known cause, was, for the first time, seized with the nervous affection for which she consulted me. Without being sick, she goes through the pantomime of sickness; she gasps for breath, but retains consciousness, and does not suffer from positive pain, but from the anguish of not being able to breathe. The attack lasts from 3 to 10 minutes, and is often preceded for several days by a spasmodic affection of the jaws, "as if she could not put the teeth in the right place." A neuralgic flash of pain across the forehead and heavy sweats, are its immediate precursors, and it leaves her in such a state of exhaustion, that she has often kept her bed for several days. These attacks used to occur at short intervals, but lately there has been a longer period between them. Worry brought one on a month ago. She has no epigastric pain during the attack, or at any other time. For the last 3 years there has been a red sediment in the urine, and an unusually frequent desire of passing it.

She has no leucorrhœa, but for 2 years she has been frequently troubled by great irritation of the labia. Hard lumps are said to arise, and, after remaining a few days, to disappear, without suppurating, but sometimes end by a pimple, and lately she has suffered from piles. Miss O. is evidently very nervous, and although grown stouter her energy has not increased, for she talks of the great fatigue it would be for her to take a bath. As Miss O.'s attacks were becoming less and less frequent, no active treatment was required. I recommended the comp. camph. mixture to be taken, off and on, for several months; 20 drops of liquor potassæ in a little water, after meals, and the sulphur and borax at night. Warm baths were also suggested, particularly when there was pudendal irritation, and after a time I advised her taking the syrup of citrate of quinine and iron. This patient enjoyed such excellent health until cessation, that I am disposed to attribute all the subsequent illness, the nervous attacks, the erysipelas, and the pudendal irritation, to the organic changes set on foot by the turn of life. I refer the symptoms to a neuralgic affection of the ganglionic centre, although it was not the seat of pain, as in the next case, which Dr. Marrotte published—*Gaz. des Hôp.*, 1854—under the title of

CASE 39.—*Spasme simultané de la glotte et du diaphragme.* — A woman, aged 44, entered the Hospital of "la Pitié." The m. flow came at 17, with disturbance of health, and at 23 she had frequent m. irregularities; became nervous, had agonizing sensations at the epigastrium, with globus hystericus, and a spasmodic contraction of the diaphragm, continuing so long that her friends feared asphyxia. In these attacks, which occurred about 3 or 4 times a week, she heard what was said, but could not speak. Cessation took place at 42, and the nervousness has increased, for she laughs or cries at the least thing. The day the patient entered the hospital the house-surgeon saw her in one of these attacks. Pain at the pit of the stomach, and a sensation of stricture at

the basis of the chest were first felt, then respiration was suspended, after which followed great efforts to inspire and expire, both being separated by variable intervals, and accompanied by laryngeal whistling. The noise was strongest during inspiration, which was attended by an exaggerated dilatation of the chest, and great efforts to swallow an imaginary bolus. Several of these attacks occurred, lasting from half-a-minute to 3 minutes, and were followed by pain at the pit of the stomach, by fainting and exhaustion. The attacks seemed to abate on pressing the pneumogastric nerves at the inferior edge of the thyroid cartilage.

Voisin also relates, that a case of hysterical hemiplegia was sometimes attended by instinctive and prodigious efforts to breathe, with emission of a singular noise from the glottis. Dr. Marrotte considered his case analogous to the laryngismus stridulus of children; but when the subject was discussed at the *Société de Chirurgie de Paris*, Dr. Beau judiciously observed, that there was no analogy between the two affections. At p. 64 of my work on *Diseases of Women*, I have given the case of a lady, aged 33, whom I have frequently seen similarly attacked; there was no laryngeal spasm, but absence of all respiratory movements for 5 or 6 minutes, as she lay immoveable, and with open mouth. The gradual solution of the spasmodic contraction of the diaphragm could be measured by the increased length of respiration, a full respiration bringing back consciousness. Sir B. Brodie mentions the case of a young lady, in whom the slightest pressure on the epigastric region would bring on paroxysms of suffocation from spasmodic contraction of the walls of the chest, and these cases are what the older authors called *Hysterical Asthma*. In a diminished degree, the symptoms frequently attend an ordinary hysterical attack, though they may occur intensely to women suffering little from the ordinary forms of hysteria, and who present no signs of emphysema, or of heart or lung disease. In my 6 other cases of cardialgic asthma at

the c. of life, the symptoms were less marked than in that of Miss O.; but those described by Dr. Marrotte were reputed not uncommon by Dr. Beau, who mentions having seen a woman, suddenly taken with suffocation, die in two minutes, without any discoverable cause. M. Bacchias, in his thesis, has given several similar cases.

Having described the minor, as well as the most severe forms of cardialgia,—having adduced examples of it, where the prominent symptom was pain or sensations almost baffling description, and complicated by various reflex neuralgia, it is well to inquire the opinions of pathologists, who have described the severe forms of the disease of the ganglionic centre under the names of, *Cardialgia, Gastrodynia, Leipothymia, Gastralgia, Hyperœsthesia of the solar plexus, Hyperœsthesia of the cœliac plexus, Hysterical Asthma, Sinking Dyspepsia, Neurosis of the Vagus*, and some of my cases have been called by other practitioners *a nervous affection of the diaphragm.* Women frequently complain of *chest pains*, or of *spasms, inward spasms*, or *inward hysterics.* Hippocrates has noticed agonizing epigastric pain, accompanied by the impossibility of breathing, as having occurred at puberty. F. Hoffman, in describing cardialgia, insists on the intense pain at the pit of the stomach, the sense of anxiety, the difficulty of breathing, and the prostration of strength, but thinks, with Barras, that the stomach alone is affected. Some of Schmidtman's cases of this disease are similar to mine, like that of a girl of 16, who, for several months before menstruation, suffered severely, at the pit of the stomach, for a few days every month. Barras has adopted the term Gastralgia, for the ganglionic phenomena occurring at lactation, chlorosis, or pregnancy; and remarks, that his patients refer the sensations of weakness and annihilation which overpower them to the epigastric region. Jolly and Georget also use this term, and note its frequency in women during the reproductive period of life, or whenever the system is strongly reacted

on by the reproductive apparatus. Louyer Villermay gives cases in which hysteria is accompanied by attacks of intense epigastric pain, exhaustion, syncope, or suffocation. Dr. Addison has not exaggerated the frequency of cardialgia in those suffering from uterine affections, and Hufeland and Chambon state that, at the c. of life, women are subject to suffocation and epigastric spasms. Dusourd, remarking on the same phenomena, correctly says, "they simulate asthma," and adds, that "the affections and sensations at the pit of the stomach at the c. of life baffle description."

A valuable contribution to neural pathology has recently been made by Dr. Shearman—*Medical Times*, September 20th, 1856—who has evidently been forcibly struck by cases similar to the preceding. Bearing in mind the fact, already well established by Romberg, that neuralgia of the vagus nerve is indicated by patients becoming ravenous, who could previously take only the smallest quantity of food; and coupling this with Bernard's discovery, that irritation of the origin of the vagus caused sugar to form in the liver, which was removed by the kidneys, and appeared in the urine, Dr. Shearman "concluded that the disease was one of the vagus nerve in some parts of its tract, either centric, peripheral, or intermediate; of irritation in its early stages, and of palsy succeeding to that irritation." He designated it *sinking dyspepsia*, and treated it as he would the neurosis of any other centripetal nerve. If I be not deceived, Dr. Shearman has exaggerated the frequency of neurosis of the vagus, describing as such, those cardialgic affections which are more or less complicated by reflex neuralgia of the vagus nerve. The vagus is a bridge by which the central portions of the two nervous systems are placed in communication. Uniting both nervous systems it resembles both, but principally the sympathetic, by its organization and the modes of its distribution. It is not a well isolated nerve, for it often anastomoses with the sympathetic, and helps to form the cœliac

ganglion, by nerves which are both numerous and volumi
Thus anatomically united, I believe the affections o
vagus and of the epigastric ganglia generally coincide.

Such is the language of previous authors and the vie
fellow-practitioners with regard to the disease under
sideration; I shall, therefore, now briefly describe the
ralgia of the central ganglia and plexus, using the old te
cardialgia—because it is generally understood to mear
gastric pain with sensations of debility.

CAUSES OF CARDIALGIA.—Brachet,—*Essay on the*
pathetic System,—found that the solar plexus and
lunar ganglion of a calf might be repeatedly pricked w
scalpel, without the animal giving any sign of pain, th
if he waited until the ganglion appeared inflamed and
pricked it, the animal was evidently hurt. He then pr
and pinched the various spinal nerves leading to the
lunar ganglion and solar plexus, and the animal gave sig
pain; but when he had cut through several of these ne
filaments, and irritated the portions no longer in commu
tion with the ganglia, no distressing symptoms were exhil
In an experiment, similarly conducted on another calf, Br
waited until inflammation had developed pain in the s
lunar ganglion, when he cut through all the nervous filan
leading to the ganglion, and it could then be pricked wi
the animal evincing any signs of suffering; he then concl
that, in their healthy condition, the semi-lunar ganglior
plexus give no cerebral sensation, and that in an infl
state they are the seat of pain, only on account of the s
nerves which go to the ganglion, and transmit its m
sensations to the brain. Thus it seems that the gangl
nerves transmit their morbid impressions to their ganglia
it is in these ganglia that the spinal nerves come and
morbid sensations, and transmit the knowledge of them t
brain, so that the mind becomes conscious of an order of
sations, of which, under ordinary circumstances, it is

destined to take cognizance. Valentin and Dr. Handfield Jones seem to have arrived at similar conclusions, which are as applicable to neuralgic as to inflammatory pain. A blow at the pit of the stomach does not kill by inflammation, but by a neuralgic shock, so suddenly intense, that the laws of pugilism forbid "to hit under the belt." The blow may, however, be so graduated as to determine corresponding shades of neuralgia and of leipothymia, while, in nightmare, anomalous epigastric symptoms are produced by indigestion. The agonies of vomiting are partly due to the more or less intense concussion of the epigastric ganglia, which explains the intense debility it causes, and the not unfrequent deaths that occur when,—as on board ship,—it could not be checked. Besides the capability of being stunned by a blow externally applied, the great ganglia are susceptible of receiving shocks from centric causes spontaneously evolved in the system. "Miseros vidi ægrotos," says Lobstein, "qui, vix somno dediti, subitò fuerunt expergefacti atque valido et quasi electrico ictu territi, ab epigastrio proficiscente; crudele phenomenon, quod per plurimum mensium spatium duraverat." Other authors have noticed the same strange sensation, but independently of these rare occurrences, it will be obvious to the pathologist, that the ganglionic centre is constantly receiving, from causes spontaneously arising in the frame, milder shocks, which determine the varied forms and degrees of cardialgia. This occurs to both sexes during convalescence, in consequence of the undue strain put on the ganglionic system for the increased impulse required by nutrition; in helminthiasis, when the expansions of ganglionic nerves are peculiarly susceptible of being irritated by worms; in agues, of which the ganglionic system is the prime motor; in hæmorrhoidal and other flows, when indiscreetly stopped by cold water; in chlorosis, hypochondriasis, and in the earliest stages of insanity, before the ganglionic are cast into shade by the magnitude of cerebral symptoms. But the greatest and most frequent cause of dis-

turbance of the ganglionic centres, is the strong reaction of the reproductive organs: puberty, menstruation, pregnancy, lactation, and cessation, almost always cause slight forms of cardialgia, and sometimes the severest, leading to suicide and to the varied forms of insanity. Woman suffers more than man, for her ganglionic nervous system is doubly taxed for self-nutrition and that of the race, and if she be susceptible of so often "tumbling to pieces," and of being again knitted firmly together, it is because her ganglionic nervous system has been endowed with extraordinary powers for good or for evil; but man does not escape. Schmidtman, who paid so much attention to nervous affections, says, and I confirm the correctness of the remark, "whenever a young man consults me for cardialgia, I suspect onanism." Cardialgia, under varied forms, is frequently observed in spermatorrhœa, and explains why some commit suicide, and many become hypochondriacs. The *debauché* and the *roué* are frequently at a loss for terms to express the annoyance of their sufferings at the pit of the stomach.

SYMPTOMS AND DIAGNOSIS.—At puberty, during irregularly performed menstruation, pregnancy, lactation, or the c. of life, the pains at the pit of the stomach may be said to depend on hyperæsthesia of the solar ganglia and cœliac plexus, particularly if the patient has been subject to causes likely to produce nervous affections, if cerebro-spinal neuralgia co-exist and has been intermittent, and if nervous symptoms be unexplained by organic lesions of the stomach. There may be oppression and faintness, with or without violent pain at the pit of the stomach; sensations like "the fluttering of a bird," "the throbbing of an animal," or those "of internal rawness," "of gnawing and of tearing;" but these feelings do not depend upon gastric inflammation, since the stomach, even in some of the most distressing cases, can digest anything. I, therefore, adopt Lobstein's opinion, that they indicate a state of suffering of the ganglionic nervous centre—"Hodie cer-

tissime evictum est, quod tot numerosæ sensationes, quæ in epigastrio percipiuntur, neque ad musculos, neque ad vasa, neque ad organa gastrica sint referenda, sed unice ad plexum nervorum gangliosum, trunco cœliaco insidentem, atque a Wrisbergio summo cum jure *cerebrum abdominale* vocatum." Romberg is "inclined to think, that the peculiar sense of fainting and annihilation accompanying the pain, is pathognomonic of cœliac neuralgia, and distinguishes it from neuralgia of the vagus." A sensation of stoppage in the œsophagus, of choking, or of scalding, rising from the stomach to the throat, with the regurgitation of ropy mucus or vomiting; copious perspirations or a greater flow of urine, will occur when the pneumogastric is affected with neurosis. Pressure often relieves, though a slight touch may sometimes increase the pain. Women instinctively unfasten their clothes, and some of my patients have left off stays on account of their liability to cardialgia. The debility entailed by a severe attack of cardialgia is beyond the conception of those who have not witnessed it. A good night's rest does not restore the usual strength, which seems drained from its fountain head, and does not return without several days and nights of real repose. The intermittent character of the pain has been well indicated by Schmidtman, *Per intervalla vexat cardialgia et remittet intermittetque.* I have seen the worst paroxysms of cardialgia come on in the midst of perfect health and without any apparent cause, but I have seldom seen them assume the tertian type, said by Dr. Shearman to be of frequent occurrence. Whether the presence of sugar in the urine is a pathognomonic sign of neurosis of the vagus, as stated by Dr. Shearman, is to me very doubtful, for having shown how intimately the vagus and the cœliac ganglia are united, I question whether the solution of a nutrition problem, like that of the formation of sugar in the blood, is not rather to be sought in that nervous system, which is chiefly connected with nutrition; but this is a fit subject for future researches.

Admitting, with Romberg, that the sense of repletion after taking a small amount of food, and the absence of satiety after taking a large quantity, indicates hyperæsthesia of the gastric branches of the vagus, and that the accompanying sensations of burning or gnawing at the pit of the stomach, with overpowering debility, indicate cœliac neuralgia, the distinction has no practical bearings, as Romberg himself admits. Cardialgia with all its singularities has been described; but in the next chapter its agency in the production of reflex cerebral diseases will become a subject of inquiry.

TREATMENT OF CARDIALGIA.—The volume of the brain, its complicated and regular structure, show it to be contrived for important ends, and although the relation existing between the intellectual faculties and the structure of the brain cannot be comprehended, it must be admitted. It is perfectly incomprehensible that so much vital force for good or for evil should be centralized in little irregular lumps of nervous matter, and in sundry tangled skeins of nerves, the geography of which, like that of the polar regions, is differently mapped out by successive observers; but though incomprehensible, it is no less certain that these knots of nervous matter, and these tangled skeins of nerves, are indissolubly connected with the supreme power which guides the processes of healthy or diseased nutrition. This is proved by the writings of Winslow, Bichat, Reil, Wilson, Brachet, Philip, Broussais, Lobstein, &c.; and I refer the reader to the works of these authors, and to the late experiments of Claude Bernard and D. Axmann, as well as to my work on *Diseases of Women*, in which I have condensed what is known about the physiology and pathology of the ganglionic nervous system. Whether, with Bichat, anatomists look upon the ganglionic nervous system as independent, or with Haller, as an offshoot of the cerebro-spinal system, I, as a physiologist, follow Müller, who considers the ganglia the source of the energies of the sympathetic nerves, and the fountains from which the ganglionic

draw the constant, gradual, galvanoid action which is kept up in the capillaries throughout the frame. It, moreover, appears that each separate ganglion sends its contingent of nervous influence to the central ganglia, which react on the brain, and that the force with which the ganglionic nervous system is endowed, is as much centralized in the epigastric region as the intellectual faculties are in the brain. Discordant as medical theories generally are, it is singular how often the importance of considering vital force as centralized in this epigastric centre has been prominently asserted; Galen and Fernellius called it the principal lever of the human forces; Van Helmont there placed his *Archæus*, or principal ruling power; Wrisberg and Lobstein treated of it as *the cerebrum abdominale;* Hunter called it the sensitive centre, and the centre of sympathies; and Bichat, Broussais, &c., considered it the prime conductor of nervous influence. The importance of this region as a centre of power, is even shown by the erroneous theories which made some medical men place the seat of sensibility in the diaphragm, and by the popular belief that the human passions are centred in the præcordia, whereas they merely react upon it as stimulants when the passions are of an exhilarating nature, or as depressants when they are of a contrary nature. The common consent of mankind, the convictions of many illustrious men, and my own experience, fully persuade me that the epigastric region is a real centre of nervous power, and I therefore seek to act upon it by such remedies as seem likely to enable one to increase or diminish its power or to regulate its disordered action. This should be done, if only to relieve the painful, distressing, and the unaccountable sensations experienced by patients in this region; but being firmly convinced that this ganglionic nervous centre is in constant action and reaction on the brain, and having seen it so often derange the mental faculties at puberty, during pregnancy, puerperality, lactation, and cessation, I deem it imperatively urgent to apply remedies to this centre. Another

important reason for seeking in every way to relieve epi
pain and anomalous sensations at the c. of life, is, that
will not long endure these sufferings without seeking
If the faculty do not relieve them, they will instinctiv
to stimulants, the poor to porter and gin, the rich to wi
brandy; is it not then better to try to alleviate the
tressing symptoms by medicine, than to run the risk of
becoming gradually addicted to the most deplorable ha

The chapter on the general treatment of diseases at
of life must be borne in mind, inasmuch as local applic
can be of little utility without constitutional treatment.
the mild forms of cardialgia are presented, the epi
uneasiness, the sinking and faintness, I first ascertain w
these sensations depend upon foul secretions requirin
gatives, before ordering my sedative mixture before mea
alkali after meals; 3 grs. of blue pill and 2 of ext. of
every, or every other night; a mustard, or a hot linseed
poultice, sprinkled with coarsely-powdered camphor
other night; dry cupping, as recommended by Gale
oil-silk over a cotton wool poultice, or a camphor sach
be worn during the day on the pit of the stomach.
pains continue, I prescribe a pitch, a belladonna, or an
plaster, made soft, so as to embody from 5 to 10 gra
opium to the square inch. The plaster should be left o
should it fail to relieve, I repeat it every 4 or 5 days
apply two; one to the pit of the stomach, and the otl
the sensitive region of the spinal column; or I order
nately, an opium or a belladonna plaster every 4th da
there be sleeplessness and nervous irritability, I give fi
to 10 grs. of Dover's powder every, or every other night
with the intention of acting on the seat of the disease,
given the 12th of a gr. of acet. of morphine every
two hours, until the induction of drowsiness. If, beside
sensation of prostration, there be downright pain, resisti
local means previously detailed, I sometimes have,

benefit, applied a piece of lint steeped in chloroform, and covered with oil-silk, to the pit of the stomach, retaining it in its place by a bandage. Dr. Ameuille has, I find, thus used chloroform for similar affections. A blister, though often ineffectual, has sometimes relieved the pain ; and this reminds me that Comparetti and Barras derived no utility from blisters in the gastralgic affections they attended at Venice and at Paris. Lorry also thought them of little use. In the worst cases of cardialgia, where there were fits of agonizing epigastric pain, its intensity was often abated by from 30 to 60 drops of aromatic spirits of ammonia in the smallest possible quantity of water ; or by the same quantity of chloroform on a lump of white sugar, and melted in a little water ; or by chloric ether, which is less disagreeable to take ; or by 20 drops of sulphuric ether in one ounce of which a drachm of camphor had been dissolved ; or by a drop of essential oil of peppermint, on a lump of sugar, and dissolved in water. In some cases the paroxysm would take its course, and abate according to some law of its own ; in others, all milder remedies failing, I have denuded the skin of the epigastric region to the extent of a crown piece, by strong blistering tincture, or placed on its surface a piece of linen wetted with strong spirits of ammonia, applying afterwards from 3 to 6 grs. of acetate of morphine. This plan of treatment has been praised by Barras. Veratria and aconitine are also invaluable agents in difficult cases. I have employed them externally, as Dr. Turnbull has done in other affections, incorporating the active agent with lard, 1 scruple of veratria, or 1 gr. of aconitine to 1 oz. of lard, directing a piece the size of a filbert to be rubbed on the epigastric region for a quarter of an hour, until warm and pricking sensations were excited. This application may be repeated every 2nd or 3rd day. Trousseau and Mathieu speak highly of this method of applying veratria ; and the following liniment, recommended by Dr. Oldham for the neuralgic affections of women, may be tried with advantage :

Ext. belladonnæ	ʒss.
Tinct. aconiti (Fleming's)	ʒiv.
Tinct. saponis com.	ʒiss.

Such are the plans of treatment habitually adopted
now briefly notice some medicines, praised by good au
but of which I have only made an occasional use.

Dehaen, Barras, and many who have paid attentic
obscure affections under consideration, praise, equa
myself, the internal and external exhibition of
hyoscyamus, camphor, and cherry-laurel water. D
Montpellier, frequently prescribed for nervous affectic
abdominal organs:—

Castor	30 grs
Camphor	15 „
Opium	8 „
Conserve of roses, q.s.	

To be divided into 15 doses, one to be taken every d
Shearman gives half-a-grain of nitrate of silver,
same quantity of opium, and 5 grains of ext. of c
three times a day; sulphate of quinine, diluted in
mixture; and ʒi. doses of potash water, to prevent th
tion of sugar in the urine. J. Frank considers
principal remedy for neuralgia of the cæliac plexus
of bismuth, the third of a grain being given two or thr
a-day, but not continued too long, for fear of co
deadening the sensibility of the nerves. He says, tha
of bismuth has a decided influence on the nerve
stomach, and that ox. of zinc is endowed with a simil
of appeasing the nervous affections of the cæliac, an
abdominal ganglionic plexus,"—assertions bearing th
of exaggeration. Hufeland writes favourably of hydr
of zinc, in 1 to 4 gr. doses two or three times a-day.
of bismuth is frequently given in 10 to 20 gr. doses, su
in a little mucilage, and may be repeatedly take

empty stomach. Acetate of lead, in one-sixth of a grain doses, has been frequently given, with success, by J. Frank, in cases of cardialgia caused by onanism, and accompanied by spermatorrhœa; but this I have never tried, nor the powder of nux vomica in 2 gr. doses, nor its ext. in a 1 gr. dose, strongly recommended by Schmidtman. Comparetti and Barras speak highly of ice to calm pain in spasmodic affections of the stomach, to increase the sensation of strength, and the peristaltic movement of the intestines. This reminds me that, in some severe cases, when the patient could not swallow cold water, or anything warm, there was a strong inclination for ices; which, as well as Nesselrode pudding, could be easily swallowed, and the pain was for a time relieved. Intense heat is as serviceable in this, as in other neuralgic affections. The actual cautery and moxas to the pit of the stomach have been used in olden times, so transcurrent cauterization might now be useful. The Chinese relieve cardialgia by plunging acupuncture needles into the epigastric region; and Dr. Despine speaks favourably of the hot springs of Aix en Savoie, taken internally, and given in baths and shower-baths to the abdominal region.

IV. CHLOROSIS.—Dr. Merei affirms that chlorosis is one of the most extensively diffused pathological conditions of the present age. It is, doubtless, often met with in the years which follow puberty, but all should recognise its frequency at the critical periods of woman's reproductive life. Caseaux has pointed it out during pregnancy; Blaud, of Beaucaire, who has carefully studied the action of ferruginous preparations, admits it to be more common than is generally believed among adults; and Dusourd has recognised it at the c. of life. Indeed, every one must have noticed the altered appearance of some near relative at that period, the change of skin from a healthy hue, to the waxy, sallow tint, the bloodless lip, the pale white of the eye, with headache, pseudo-narcotism, general debility, reluctance for exercise and for food. Leaving out of

of the ganglionic nervous system which a
vessels and gives vitality to the blood. I l
with Dr. Jolly, of Paris, that chlorosis is a
of the ganglionic nervous system ; and with
in many cases, occurring amongst the poore
the action of malarious influences upon the
is the first link in the chain of causation ; b
not be severed from others equally frequen
arises under the healthiest circumstances ar
families, showing that the ganglionic syste
the economy another cause of chlorosis.
as at puberty, the nervous energy of the c
and the epigastric centre, not being suffici
unable to promote the healthy performanc
blood is impoverished, the whole system
ralgic affection of the ganglionic nervous sy
follows. The treatment of chlorosis is we
beates are as useful as at puberty, but
required. I generally give from 15 to 30
syrup of citrate of iron, or citrate of ir
draughts, adding ether or tinct. of amberg
mixture. Chlorosis is shown to be a neura
ganglionic system, because at all periods

CHAPTER XI.

DISEASES OF THE BRAIN.

TABLE XXVIII.

Frequency of Cerebral Diseases in 500 Women at the c. of Life.

Nervous irritability	459
Headache	208
Monthly headache	7
Sick headache	92
Hemicrania	3
Apoplexy and Hemiplegia	6
Pseudo-narcotism	277
Hysterical state, or hystericism	146
Hysterical fits, only since cessation	3
Globus hystericus, only since cessation	17
Laughing and crying fits, only since cessation	4
Monthly hysterical symptoms	1
Hysterical flatulence	8
Prolonged fits of unconsciousness	3
Epilepsy, only since cessation	3
Epilepsy, much aggravated	5
Delirium	3
Insanity	16
	1261

Thus 500 women divided 1261 forms of cerebral disease, confirming the general belief in the frequency of cerebral affections at the c. of life. After cessation, the liability to nervous affections greatly decreases; headache, nervous irritability, and pseudo-narcotism, have not the same intensity; but

cerebral hæmorrhage, apoplexy, and softening become more frequent.

Many have noticed the frequency of cerel Gardanne and Dr. Ashwell state, that even whe ably passed, the c. of life brings with it a trai symptoms. The Registrar-General's Reports pr women, from 40 to 50 years of age, died disease, while it only proved fatal to 1351 men period of life. Gardanne and B. de Boismont tendency to headache; Dr. G. Bedford alludes to t the intensity, and eccentricity of the nervous sym epoch; and B. de Boismont thinks transitory insanity then of frequent occurrence. I do not be so in England, though a large class of thoroughly unhinged by the c. of life being lef course: eccentricity embitters their existence an those around them; and should they lose fortun they may become insane, or may erroneously be by relatives whom they irritate by their eccentric hence arise scandalous suits and the squanderin among lawyers, while all this mental disturban anguish—this sacrifice of property and of charac general, be prevented by the systematic treatme vous symptoms when they first occur. I cann often, that this crisis, like puberty, weighs up quent lifetime of women, and, thus considered, symptoms of the c. of life assume vast importan to understand them better, I shall throw on th derived from the study of the same affections at of the reproductive function, and, after giving results of experience, attempt to account for the and discuss their treatment.

NERVOUSNESS AND MORBID IRRITABILITY.—B that the nervous system is more than usually external impressions, such as cold, light, noise, t

of the internal organs and to that of emotion. There are not only innumerable degrees, but various modes of nervousness. If patients are asked if they are nervous, they always understand the term to mean hysterical, and are often indignant at the question, though they will readily own that, without being over-sensitive to emotional stimuli, they cannot bear the slightest noise. In some, the temper remains unruffled, but they are ready "to jump out of their skin" at the jarring of a door, and are in agony at hearing the leaves of a book turned over. To some it is torture to hear others converse; others say, that on the most trivial occurrence, they "feel pulses beat all over them;" they "feel all of a tremble, all of a shake;" "my flesh feels so heavy upon me," said one Dispensary patient, and "sensation is my calamity, not pain," was the eloquent expression of another; while one could not "stop in church because she felt the people too close." The fidgets—the *anxietas tibiarum* of nosologists—are a very frequent expression of nervousness. They indicate *nervous plethora*, seeking to be relieved by exercise or muscular action. Although one cannot determine the anatomical conditions of the nerves when they are the seat of nervous congestion, I think it should be admitted as much as the congestion of blood-vessels by blood. The nervous fluid is too subtle to be seen or felt, but the mind can deduce the fact of its being too abundant from the effects produced. I first allude to this nervous irritability because it is the "materia prima" of all nervous affections, the basis on which they rest, and the soil in which they grow; but to speak of nervousness as *hysteria* is to perpetuate the state of confusion out of which the pathology of the nervous system has scarcely emerged. The last table shows the frequency of nervous irritability at the c. of life, and I believe it to be then, as at puberty, of almost constant occurrence, just as frogs are more susceptible to electrical influence, every returning spring.

HEADACHE.—This is a very frequent symptom at the c.

51, after dodging her for a year. She then suffered for a twelvemonth from flushes and perspirations, particularly at meals; otherwise she was pretty well all day, but at 2 o'clock in the morning a severe headache generally awoke her from a sound sleep. This occurred "off and on, for two years after cessation," says the patient, and her account is confirmed by her daughter. A few months since she lost her husband. The shock induced great debility, and caused the flushes and drenching perspirations to return, 4 years after their subsidence.

CASE 41.—*Periodical hemicrania at cessation.*—Miss M., aged 45, is tall, slight, and of a sallow complexion. The m. flow left gradually at 43, without flooding, after having been always regular, though frequently accompanied by headache and *globus hystericus*. Ever since cessation, these symptoms have become worse, and every fortnight she is laid up with hemicrania, for 2 or 3 days, during which time there is nausea and the vomiting of acid fluid. The tongue is clean, and the digestion good.

APOPLEXY AND HEMIPLEGIA.—Notwithstanding Dusourd's contrary assertion, women are not much subject to apoplexy at the c. of life. I therefore consider the following to be exceptional cases.

CASE 42.—*Apoplectic fits, caused by cessation.*—Mary C., of small stature, heavily built, with black hair, hazel eyes, face fully injected with blood, and a very short neck, was 55 when she came to the Farringdon Dispensary, June 5th, 1855. The m. flow appeared at 13, and was regular until she married at 19. During 9 years of her married life she seems to have been a constant victim of uterine inflammation. Seven times in the family-way, she never went the full time. After losing her husband, at 28, the uterine disease gradually abated; once the abdomen swelled very much, and at the 9th month she had a flooding, the sanguineous discharge lasting a month. For the last 10 years of being regular, the m. flow was painless and very abundant. It ceased suddenly,

Eliza C., aged 47, first came to the Farringdon Dispensary, February 18, 1853, being then 44. She is of average stature and size, with brown hair, hazel eyes, and flushed face. The m. flow came at 14, and continued regular, but profuse, and with unusually severe abdominal pains. She married at 15. The m. flow ceased for 8 months, and then a large blood clot came away, and for several years either the m. flow came every fortnight, or was absent for 5 or 6 weeks, being then followed by a voluminous clot and great flooding. She never conceived, was once flooded for 3 weeks, and for the last 6 months the m. flow has appeared every fortnight. Such being her state of health, without known cause she was suddenly seized with hemiplegia of the right side. She walked to the Dispensary, dragging the right leg, the right arm was numb, often felt like pins and needles, and could be pinched without causing pain. She looks stupid, complains of headache, loss of memory, temporary loss of sight, stutters in speaking, and cannot find the words she wants. The attack of hemiplegia was accompanied by epistaxis from the right nostril. She had been already cupped at the nape of the neck, and I ordered 8 oz. more blood to be withdrawn in the same way, and gave calomel with opium, and black draught. February 21st and 24th she lost blood from the right nostril; I continued the same measures, 8 oz. more blood were withdrawn, and immediately afterwards came a violent flooding, which continued until March 5th, when I ordered alum injections, antimonials, and 1 gr. of opium, with 3 of c. ext. of colocynth, to be taken at night. During the flooding, blood frequently trickled down the right nostril. Notwithstanding the quantity of blood lost by the patient, her strength seems but little impaired; she is quite conscious, and walks to the Dispensary; but the hemiplegic symptoms are as marked as ever. May 12th.—She has returned from the country and is better, but still complains of numbness of the right side. She can say what she wants, but has a difficulty of utterance, and com-

plains so much of pain on the right side of the head, ordered her to rub in twice a day the size of a walnut c of mercurial ointment, mixed with 2 drachms of ext. of donna, and to take the com. camph. mixture, and the and myrrh pills at night. June 16th.—After having r in the ointment 4 times, her head felt very sore, and " was heavier and larger than usual." The pupils were so she could not see distinctly, then salivation came on, soc sided, after which she was better in every way, the he no longer painful, and she could use her right arm a though they remained weak. I lost sight of the patien May 31st, 1856, when she appeared the same as when saw her, except that her face, instead of being flushe spotted with dabs of capillary injection. The flooding, her previous illness, had been the last appearance of flow, and since then she had suffered more or less from ache, abdominal pains, faintness, flushes, and perspir Lately the head has been very painful, she finds it diffi keep awake, and cannot bear to be spoken to; the rig and leg are almost useless; the right hand is soddene perspiration, has pricking sensations, and scarcely feel it is pinched. Blood has been passed in the urine, a says that hæmaturia occurred also in her first atta ordered 8 oz. of blood to be withdrawn as before, calom opium to be taken at night, and a black draught morning. June 25th.—She was cupped to the same e on the 4th and 18th, the bowels had been kept freely antimonials had been administered, ice applied to the and the patient was sometimes better, sometimes worse bewildered, at times ungovernable, but the hemiplegia toms remained stationary. I again ordered the mercur belladonna ointment to the head; she rubbed in 2 head seemed swollen, she felt stupified, could not see for 3 days, and was salivated. The head and right sic became much better, but the right hand is still po

She had a slight m. flow for 3 days, after an interval of as many years, and I prescribed comp. col. pills, the camph. mixt., and 15 grs. of nitre 3 times a day. Finding the hemiplegic symptoms somewhat worse on the 16th, I advised the posterior half of the head to be shaven, and the ointment to be applied again. This was done with decidedly good effect; and when I saw the patient on August 20th, she no longer suffered from hemiplegia, and was able to attend to her domestic duties, although suffering from debility, headache, and nervous symptoms, most likely increased by occasional fits of intemperance.

Proper treatment and dietetic measures after the first severe attack would most probably have prevented a relapse. The ataxic or revolutionary condition of the governing powers of the system is shown by blood coming at the same time from the womb, kidneys, nose, and the nape of the neck. The sudden good effect of the mercurial and belladonna ointment recommends a plan I have found equally useful in other cases. The salivation soon abated on leaving off the mercurial inunctions, as I have noticed in other cases similarly treated, though, if it had lasted the usual time, the remedy is warranted by the severity of the disease. Dr. Teissier, of Paris, has published—*Gaz. Med. de Paris*, 1851—a case of periodical nervous apoplexy.

CASE 44.—*Periodical nervous apoplexy.*—A lady, 60 years of age, since the c. of life, has every month, at the period she had been accustomed to menstruate, the following attack. She becomes unconscious, and on recovering her senses one-half of her body is paralysed, and her speech is affected. This continues for several days, and gradually disappears, to return at the next monthly period. Being naturally of a calm and tranquil disposition, those about her know when the attacks are coming on by her agitation and restlessness.

PSEUDO-NARCOTISM.—The following cases will show the meaning I wish to convey by this term.

CASE 45.—*Pseudo-narcotism at cessation.*—Mary H., stout, middling stature, sanguine temperament, flushed heavy eyes, uncertain walk and attitude, with all the ap ance of being intoxicated, was 60 when she came to Paddington Dispensary, September 24th, 1849. The m. appeared at 11 with giddiness and sleepiness; it conti regular and abundant, though always accompanied by drowsy giddiness," for which she was often bled and cu She married at 21, had a child at 26. The dodging- began at 40, and lasted until 58, when cessation occu During these 18 years the m. flow was irregular, being s times very scanty; at others, a flooding. She was troubled with leucorrhœa, bad back pains, faintings, flu sweats, headaches, and was so giddy that she frequ tumbled down, and people thought her tipsy. When wal out, she was always obliged to get near the railings, so have something to hold by. She said she never drank thing but cold water, and her landlady confirmed her s ment. About 58, when the flow stopped, she was a George's Hospital for ascites, and small sub-cutar abscesses, which burst. Diuretics considerably reduced ascites, and for the last 6 months she has suffered more cerebral symptoms. Intense headache, with pain, and ing in the ears, pains in the eyes, chills, and flushes, are now most distress her; and as she sits before me, the spiration trickles down her face. Every 28 days these s toms are most troublesome, and remain so for a few She has been unable to do any regular work for 5 year had 8 ounces of blood taken from the patient, ordered a purgative, to be repeated every week, several glasses of c of tartar lemonade to be taken daily, and warm pedi every night. By following this treatment for a few w the case was greatly improved; but she could not afford b and would not allow the bleeding to be repeated, wh if ever there was a case in which small repeated blee

would have been beneficial it was this. She was of full habit, bore bleeding well, and the m. flow had always been abundant; 3 to 4 ounces of blood should have been taken from the arm every month for the first 3 months, then every 2nd month, then every 3rd, and so on, adding baths, purgatives, alkalies, and mild sedatives. This is one of the most marked instances of pseudo-narcotism I have met with. It appeared with first menstruation, returned at every m. period, and completely incapacitated the patient from earning her livelihood for five years.

What name then is to be given to this nervous affection? It cannot be called congestion of the brain, for there were no signs of this condition in the following case, though the nervous symptoms were similar :—

CASE 46.—*Pseudo-narcotism caused by the c. of life.*—Mary G., thin, tall, with dark hair, delicate complexion, drowsy look, and, when roused, looks as if she expected to see something dreadful, came to the Farringdon Dispensary, July 25th, 1854. She was then 49 and single. The m. flow appeared at 14, and continued regular, with little pain or other disturbance until the last 2 years, when it became irregular, and like "brown cinder dust." She also became unusually nervous, "feels silly, as if her head were one dead lump," and "five minutes after putting things away, she forgets where she has put them." More than once she has lost her way in streets well known to her. She sleeps all night, wakes unrefreshed, often falls asleep during the day; sometimes feels stunned, and loses her senses for an hour. She complains of a *hot* pain at the pit of the stomach, with frequent sensations of sinking, which pain is worse after eating. Sometimes she will stop 3 days without food, and then eat ravenously. For the last 6 months the bowels have been costive, and for the last 2 years, she has been troubled with flushes and sweats. I ordered the comp. camph. mixt. before meals, the carb. of soda after, 3 grains of blue pill, and

2 of ext. of hyoscyamus every night, also 10 grains of Dover's powder, a large belladonna plaster to the pit of the stomach, with hot pediluvia every night. This was continued for a week, and I never saw greater improvement in so short a space of time. The eyes seemed at peace with surrounding objects; she looked cool, comfortable, and self-possessed; she had lost her strange feelings, and was less drowsy during the day. The improvement was lasting; and I only see the patient now and then, when there is a slight return of the head symptoms. Pseudo-narcotism is generally allied to other cerebral symptoms, but in this case pseudo-narcotism appeared almost alone. There was no headache, sick-headache, or hysteria.

Again I ask, what is the name of this nervous affection? Congestion of the brain? There was none. Anæmia? There was none. Neither can it be called Hysteria, for that would be to adopt the common custom of calling *hysteria* any nervous affection that is little understood. I say that these patients suffered from pseudo-narcotism; and if it be urged that it is useless to give a new name to exceptional cases, I reply that this affection is common at all the critical epochs of woman's life, especially at the change, when I observed it in 277 out of 500 cases.

At puberty, girls previously lively and clever, become stupid and useless when sent on a message, as they frequently forget what they were sent for, or how to come back; or when at home, they will frequently let things fall out of their hands, and often fall down in stooping to pick them up. Pseudo-narcotism is often very intense when the m. flow is either very painful, deficient, or completely absent. I have known intense pseudo-narcotism, resulting from amenorrhœa, mistaken for an idiopathic affection of the head in a girl of 21. Her head was shaven, and she was bled and salivated, to the ruin of her constitution. N. G., at m. periods, could almost sleep while walking, and once remained 16 hours in a state of

stupor, from which she awoke quite well. K. R., at m. periods, would remain for hours in what she called her "quiet fit," a state of self-absorption and total inactivity of the m. function, unaccompanied by hysterical phenomena, or by convulsions. Such examples of pseudo-narcotism are fortunately rare, for they present the extreme of what may frequently be observed. The ordinary symptoms are, a great tendency to sleep, an uneasy sensation of weight in the head, a feeling as if a cloud or a cobweb required to be brushed from the brain, disinclination for any exertion, a diminution in the memory and in the powers of the mind. But whether slight or intense, the symptoms indicate different degrees of the same cerebral affection which I have described in the patient's own words. They represent the diminished degree of that hysterical coma, in which, says Pomme, some would have been buried alive had he not interposed. A high degree of pseudo-narcotism is sometimes the immediate consequence of connexion. This was always the case in a patient of mine during the first year of marriage. Sometimes she would recover from it in half-an-hour or an hour, sometimes the morbid would merge into the natural sleep, being followed by headache and prostration of strength during the following day. During pregnancy, the milder forms of pseudo-narcotism are frequent. The heaviness of head, the dulness of intellect, the giddiness, the tendency to fall, which are often erroneously considered symptoms of plethora, and used formerly to be treated by venesection. S. C. always knew herself to be pregnant by feeling heavy in the head, giddy, and by very sleepy sensations, which increased as she increased in size. In P. N. there was no pseudo-narcotism at the m. epochs, but much during pregnancy. The milder forms of pseudo-narcotism are amongst the symptoms of over-lactation.

Physiognomists will be struck by the appearance women frequently present at this period, their [redacted] and tottering gait, their vacancy of [redacted]

expression of the eyes, and the efforts they make to
their oppressed intellects when aroused by a question.
asked what they feel, they complain of "heaviness
head," "a stupid feeling," "a lump in the head," "a
headache," "a numbness in the head, not pain," of "
silly," "stunned," and "the head like a dead lump."
talk of "an impulse to fall forward," they "are ofter
even in bed." Others complain of "senselessness," of "
lost and bewildered," "of a temporary loss of wits," '
fear of going mad."

At cessation, the temporary loss of memory is some
most distressing symptom. Patients forget where th
put keys or things they are in the habit of using
minutes after putting them away. "I write eve
down, or I should forget it," says one patient; and a
"I am obliged to stop and ask myself if I am doing
right." One was so forgetful that she habitually mad
her children remind her. Some forget their way ho
their names, as Thucydides relates of some of the surv
the plague at Athens. Drowsiness at the c. of life
much complained of; patients say they feel so "slee
dreamy-like," "heavy for sleep, but without pain," "ca
anywhere," "can hardly keep the eyelids open," and
sleepy they could drop off their chairs." In a few cas
ever, I have noted *sleeplessness*, as in M. C., who sa
her head feels so funny when the time for the m.
comes round, that she cannot sleep for 3 or 4 days.
patients feel as if they had taken too much, as if son
had got into their head; they are accused of being
when holding by the rails they pass in the streets; th
been turned off as drunk, or at least are not allowed
the door to visitors by a master anxious to save his o
his servant's reputation. Pseudo-narcotism is most f
and severe at the c. of life, while hysteria is rare, but
alternate with hysteria or cardialgia, as in M. J., who,

epoch, suffered severely from dull pains in the head, on the subsidence of which she could sleep anywhere; but paroxysms of gnawing pain, without sickness or dyspepsia, were her next annoyance. The nervous system of some women is so sensitive to the disturbing influence of the ovaria, that they have begun to be pseudo-narcotized at 8, and this has continued, more or less, until after cessation, when it abated. In advanced life nervous symptoms become less frequent, less intense; should the contrary occur, it denotes a tendency to insanity, as in A. H., who ceased 15 years ago, but who is so sleepy she seldom rises before 5 P.M. I have hitherto kept the results of my own observation clear from what stands on record; but lest it should appear that I have been too much struck by exceptional cases, I shall now show that esteemed authorities have met with cases similar to mine. They have not, it is true, drawn attention to the minor degrees of pseudo-narcotism, being satisfied to consider them symptoms of hysteria, but they have noted the coincidence of prolonged sleep or coma with amenorrhœa, pregnancy, lactation, and cessation. Dr. Sandras, of Paris, gives instances of its occurrence in both married and unmarried chlorotics. Dr. Villartay de Vitré has made known—*Union Médicale*, tom. V.—a curious case of lethargy occurring regularly every month in a girl suffering from amenorrhœa, the attack lasting 73 hours; the lethargic state disappearing when the m. flow was restored. Dr. Copland notices coma as a symptom of severe hysteria in plethoric subjects and in pregnancy; and he enumerates, amongst its other causes, the suppression of the m. and of the lochial flow. Montfaucon states, that some cases of hysteria stand on record where the principal symptom was continued sleep, lasting for several days, and only interrupted to take food. Pomme, who had a large practice in nervous disorders, makes the following remark:—"L'hystérie est quelquefois accompagnée par une sorte de sommeil profond, qui prive les malades de tous sentimens. Elles perd[illegible] connaissance

aussi subitement que dans l'apoplexie, ce qui en a
plus d'une fois à ceux qui négligent d'examiner alor
de la mâchoire, qui est en convulsion dans l'accès hysté
Tissot, and those who have written on onanism, rela
some of those addicted to it do not sleep at all, while
are almost always in a state of stupor. Mr. A. Hu
Annals of Medicine, 1799—Mr. Blake, and Dr. Montg
have cited cases where pregnancy was accompanied b
great drowsiness; and in Dr. Montgomery's case the p
memory during the whole time of her pregnancy was
fect void. Dr. Reid relates the case of a woman wh
always able to judge pretty correctly of the time of con
by a peculiar sensation of drowsiness, attended by si
with which she was then affected. J. Frank has
pregnant women to sleep 18 out of the 24 hours, a
remarks that some women can distinguish fruitful con
by symptoms which seem to imply a narcotic influence
spermatic fluid. Baudeloque mentions the fact of
about to be taken with fits of eclampsia being thought
by the unexperienced; and although this disease may
without prodroma, still heats and flushes, giddiness and
derment, are often its precursory symptoms. Soporous
tions have been noticed at the c. of life by Chambo
Tissot says, "I have seen one of the most reasonab
witty women I ever knew pass 2 years of her life at the
tion of menstruation in a constant dream of a calm an
character like her own habitual disposition. She was
same time so troubled with the fidgets, that she coul
remain sitting for 10 minutes at a time. If she persi
doing so longer her sufferings were intense. Her nigh
often sleepless, and remaining in bed was painful to he

I cannot better conclude these citations than by
related by Pomme, of periodical pseudo-narcotism in a
lady.

CASE 47.—*Successive fits of coma at m. per*

Mdlle. ——, aged 18, sanguine and nervous, was suddenly affected with a lethargic drowsiness when the m. flow should have come on, which symptom was alleviated by bleeding. At the following monthly period the drowsiness came again, but with greater intensity, and bleeding was again resorted to, but it failed to relieve her, so was not tried at the third and following m. periods, which were marked by the same lethargic state, instead of the m. discharge. The patient was left to nature. The drowsiness was followed by hysterical delirium, she became violent, and refused all food for 17 days. Pomme put her by force into a tepid bath, and after remaining in it 12 hours, she quieted down, and took food. For 2 months she stopped daily 8 hours in the bath, cold applications being made to the head; the delirium then disappeared, and the m. flow came.

The fact of morbid sleep being so frequent a symptom of the disturbed performance of the reproductive functions, tempts me to say one word on sleep as a physiological phenomenon—a mysterious subject, the full comprehension of which will, perhaps, never be revealed to us.

Physiologists assert that sleep depends on cerebral congestion; perhaps it would be better to own our ignorance of what may be the peculiar condition of the cerebral pulp in sleep; but as it is a symptom of all the phases of the generative function morbidly performed, or in other words, as sleep is often produced by the morbid action of the ganglionic nervous system on the brain, it is fair to ask, has this nervous system nothing to do with the production of our daily sleep? From the preceding facts, I merely wish to infer, that a good theory of sleep should take into consideration the influence of the ganglionic nervous system in its production; and without attaching too much importance to a singular case, it may be mentioned that, at the great hospital at Vienna, a man was to be seen, for many years, who passed all his time in sleeping. J. Frank saw him in 1824. When his body was

opened, the only unusual appearance was a considerab hypertrophy of the solar plexus, and of the other divisio of the great sympathetic.

I said that the singular cerebral condition described by n has no name, but is confounded with hysteria, with whic it has nothing in common, or with coma, a disease of ra occurrence, which may be the result of some other affectio I have, therefore, given it a name, because "the novelty words is justifiable when they serve to illustrate the nature things." Sir H. Holland has observed that, the difficulty getting a correct nomenclature for morbid sensations, appli particularly to the cerebral. "Nervous stupor," or "spo taneous narcotism," would be good terms, but as the sympton are similar to the gentle or powerful effects of narcotic poiso on the brain, I have applied to one group of cerebral symptor the term *Pseudo-narcotism*, thus graphically expressing t fact, without prejudging the question.

HYSTERIA.—This term, like ophthalmia and leucorrhœa, m be useful in general conversation, but medical writers shou be careful how they use it without clearly explaining th meaning. When Dubois d'Amiens, Vigaroux, Béclard, Ga danne, and B. de Boismont say, women are not subject hysteria at the c. of life, and F. Hoffman, Pujol, and Meissn say that they are, what do they mean? Do they mean th they are not subject to globus hystericus, and the min symptoms of hysteria, or that they are not subject to hysteri fits? I have pointed out the utility of distinguishing :—

1. THE HYSTERICAL DIATHESIS OR HYSTERICISM.—There a uneasy sensations in the abdomen, at the epigastric regi and in the throat, followed by instinctive efforts to gulp do emotion; uncalled-for lowness of spirits; involuntary tears, uncalled-for high spirits and laughter; with or without chan in the moral character.

2. HYSTERICAL FITS.—When, in addition to some of th

hysterical symptoms, there are fits characterised by the partial loss of cerebral power, and by convulsive action.

3. HYSTERICAL APOPLEXY.—When, in addition to other hysterical symptoms, there is a partial or a complete loss of cerebral power, unexplained by cerebral hæmorrhage. Hysterical apoplexy is a rare disease, and unnoticed at the c. of life.

Thus distinguishing what is usually confounded, I think I can decide the question relating to the frequency of hysteria at cessation; for I found that, out of my 500 cases, 146 who had suffered more or less from globus hystericus and the minor symptoms of hysteria still continued to suffer from them at the c. of life; and that 17 had globus hystericus, that 4 had repeated laughing and crying fits, and that 3 had hysterical fits, for the first time after cessation. In several of these cases, globus hystericus was so severe, as to make the patient jump up in bed for fear of being strangled. Landouzy gives a table showing that, out of 351 cases of hysterical fits, 25 only occurred after the 40th year, and that they are very rare before puberty; so that while from 14 to 45 the influence of the ovaria is shown by a larger proportion of hysterical fits, and by less pseudo-narcotism; before and after those periods the contrary is the case. Gendrin says, that the ecstatic form of hysteria is sometimes met with after cessation. With regard to the effects of the social position, hysterical symptoms are much less common among the poor, and they occur most frequently when the nervous system of woman is wrought up to an artificial state by luxurious living, by overworking the mental faculties, and still more by the over-development of emotion. With regard to the influence of temperament in producing hysterical phenomena, I have met with them most frequently in patients of a sanguine temperament, in whom the least disturbance of the periodical function has, through life, often brought on this disorder;

whereas in women of a nervous temperament, hysteria diminishes in proportion as the activity of the reprodu organs becomes less and less, ceasing entirely with the sidence of their action. Landouzy has shown that, in th majority of cases, hysterical convulsions were ushered i pain or strange sensations in the hypogastric and ov regions, pains which induce the suffocating feelings f the pit of the stomach, and then the globus hystericus. Copland has known the convulsive attack to be preced leipothymia, and I have often been struck by the alterna of cardialgia with globus hystericus or other minor hyst symptoms; globus hystericus subsiding, for instance, wl paroxysm of cardialgia appeared.

CASE 48.—*Hysteria caused by cessation.*—Lucy P. thin, with brown hair, grey eyes, and a chlorotic compl was 49 when she came to the Farringdon Dispensary, in 1854. She had always enjoyed good health, and marr 18; the m. flow first appearing the day after her wed She had several children, the last at 33, and from that until she was 44, the flow continued regular. It then d her for 3 years. For 6 months it came regularly every night, then every 2, 3, or 5 months. Several times, wh had been long without the m. flow, "a gush of blood would from the mouth or ears, and she was obliged to go to She was much troubled with faintness, flushes, sweat dominal pains, piles, which bled occasionally, pseudo-narc and for the first time in her life, hysteria. She once l convulsive fit, and very frequently crying fits, and the s tion of a lump in the throat. After suffering in this wa 3 years, the m. flow ceased altogether 2 years ago, an health grew worse. She has become weak, and her plexion turned from ruddy to sallow; she is laid u weeks with bilious attacks; she brings up bile, and bowels are either relaxed or confined. She is much tro with headache, with pseudo-narcotism, with nervousnes

with the hysterical symptoms already detailed. This patient had always enjoyed good health until the dodging-time began; from that time for 5 years she had never been well, but I was able to restore her to health in about 6 months. She first took 4 grs. of blue pill, and 2 of ext. of hyoscyamus, every other night; the comp. camph. mixture before meals, and a drachm of carbonate of soda in a mouthful of water after meals. After 3 weeks these medicines were discontinued, and 5 grs. of citrate of iron were given in an effervescing draught after meals twice a-day, and 10 grs. of Dover's powder every other night. The bowels were kept open by an occasional dose of sulphur. The comp. camph. mixture was taken when the patient was unusually nervous.

E. W., aged 50, the sister of a very nervous man, and herself very nervous, has not menstruated for the last 16 months, but has been troubled by bleeding piles. She awakes every morning with pain in the lower part of the abdomen. This is relieved by pressure, and by lying on the stomach; but only vanishes on her throwing up a large quantity of wind, which often gives her the appearance of being 5 months pregnant. There are no signs of dyspepsia about this patient. Under the influence of mental annoyance, I have often seen a copious extrication of gas occur in healthy persons of both sexes, the wind finding vent in repeated eructations.

EPILEPSY.—This is most frequently determined by fright and intense misery, but it sometimes appears in connexion with first menstruation. After a certain number of years the complaint usually wears itself out, but it occasionally returns at the c. of life. I have seen 4 such instances, and in another, the patient first suffered from epileptic fits during lactation; she had 7 children, but the fits only came on during 4 lactations, and lately at the c. of life. She could assign no cause for their appearing at some lactations and not at others; but she had kept the temperance pledge 4 years previous to the epileptic fits at cessation. Drs. Tyler

if Parent Duchatel is to be believed, delirium runs on ordinary matters, and never on erotic subjects. I have met with 3 cases of delirium at the c. of life. The 2 following are the most interesting:—

CASE 51.—*Delirium at cessation.*—Mary S., of the average size, but thin, with a sallow complexion, dark hair, and hazel eyes, was 47 when, in October, 1852, she came to the Farringdon Dispensary. The m. flow appeared at 13, and she had always been particularly free from morbid symptoms. Though twice married, she never conceived. About 15 months ago the m. flow became irregular, and she was much troubled with headache and abdominal pains. One night she went to bed as usual, and awoke delirious. She ran down the street in her night-gown, required 3 men to hold her, was taken to the Bristol Infirmary, and in 3 days, the m. flow having come on, her senses returned. Several abscesses appeared in both arm-pits, some broke, others were lanced, and, when better, she came to London, and applied at the Dispensary for relief from headache, nervousness, and lightness of head. There had been no m. flow for the last 10 months. I gave her a scruple of Dover's powder every night, and the comp. camph. mixture, which cured the patient. The singularity of this case is, that no nervous symptoms presented themselves until the attack of delirium. The patient was in tolerable circumstances, had a kind husband, and nothing to trouble her, so I cannot attribute the delirium to anything but the c. of life.

CASE 52.—*Delirium caused by cessation.*—Mary L., a tall, stout woman, with brown hair, light grey eyes, and a sanguine temperament, was 36 when she came to the Paddington Dispensary, October 31st, 1850. The m. flow appeared at 17 and continued regular, abundant, and without much disturbance. She had none of the usual head-symptoms menstruation, but, from her 20th year, was subject to leptoid fits. She married at 22, had 3 children, pregn

always warding off the fits. The m. flow was regular until her 32nd year, when, a few days after its last appearance, without any known cause, she became raving mad, and was removed to the Marylebone Infirmary. After a few weeks she was well enough to leave, and, though her health was not restored, she has never had a similar attack. She is very nervous, giddy, and bewildered; but for the last year has had no epileptoid fits. Ever since cessation the breasts have been very painful, and the nipples frequently exude a milky-looking or glutinous fluid. Treatment similar to that employed in the preceding case relieved the patient. She was 40 when I last saw her, pretty well, but the m. flow had not returned. If the sudden stoppage produced delirium in this case without any appreciable cause, it must be remembered that the patient's nervous system was tainted with epilepsy, and that her sister was also epileptic.

II. MANIA.—Drs. Dusourd and T. Smith have noticed mania at the c. of life. Before giving a curious instance, I shall mention that B. de Boismont has seen a case of mild dementia transformed by this epoch into furious mania, which lasted long. On the contrary, when cessation occurs in maniacs, it generally causes the disease to subside into dementia, and a sudden calm follows a state of furious agitation. Ferrus, Dubuisson, B. de Boismont, and others have noticed this singular effect, which reminds me of a mode of curing mania, ascribed to the priests of Cybele. "*Qui ante castrationem maniaci erant, sanam aliquanto mentem ab illo recuperant.*"

CASE 53.—*Mania caused by cessation.*—Alice B., a bilious-looking woman, with gipsy features, dark hair, grey eyes, tall and slender, was 44 when she consulted me at the Farringdon Dispensary, Sept. 10th, 1849. The m. flow appeared at 13 was abundant every 2 or 3 weeks, with a good deal of headache, sick headache, and pseudo-narcotism. Married at 19, had several children, the last at 36, and was regular until she had

days, and every third night for the 10 days following. I prevailed on her to stop two hours in a tepid bath, hot water being added when the patient felt chilly. The baths were thus taken for a month. At the end of this time, the patient looked and felt another person. All the symptoms had abated. I then gave 10 grains of Dover's powder every night, my comp. camph. mixture, and ordered a belladonna and an opium plaster to be applied, on alternate weeks, to the pit of the stomach, and a scruple of a powder composed of equal parts of flour of sulphur and of biborate of soda, to be taken twice a day. When this had been taken for a fortnight, the flushes, instead of being dry and burning, were mitigated by gentle perspirations. The treatment was continued for several months with slight interruptions, and a tour to the German spas with a valued friend completed the cure.

IV. UNCONTROLLABLE IMPULSES AND PERVERSION OF MORAL INSTINCTS. — As pseudo-narcotism has been seen gradually sloping into hypochondriasis, so the symptoms of insanity are often those of hysteria, made intense and permanent. Girls, well-behaved until puberty, then become snappish, fretful, uncontrollably peevish, full of deceit and mischief; and is not this a state of miniature insanity? Law has decreed, that to establish a defence on the grounds of insanity, it must be proved that, at the time of committing the offence, the accused did not know that he was doing wrong; whereas medicine teaches, that some are led by an irresistible impulse to deeds which they know perfectly well are criminal—deeds committed without motive, because liberty is warped by an instinctive impulse, which cannot be controlled. Freewill alone is punishable, says medicine; where freewill is not, punishment is barbarity, and the more barbarous if inflicted by the hand of justice. It is so difficult to distinguish the strong temptation, which might have been successfully resisted, from the irresistible impulse, that Judges

are averse to the doctrine of irresistible impulses; they ar averse to it, because it is the plea frequently brought fo ward to save undoubted criminals from the scaffold. Ab stract views of punishment also render Judges averse t this doctrine. Baron Bramwell, in summing up on Dove' case, is reported to have said: "Why should punishment b administered at all? It is not inflicted on a man because h has inflicted evil on others, but to hold out an example t deter others from evil. That is the true reason, in my opinion and the only object of punishment." Assuredly the punish ment of criminals has also for its object the appeasing o divine justice, and the atoning to society for mischief done and, although the inconsiderate admittal of the plea o irresistible impulse, would certainly increase crime by with drawing that constant check on evil inclinations,—the fea of punishment,—still, rather than the innocent should onc suffer undeservedly, it is better that a hundred criminal should escape. However much the plea of irresistible im pulse may have been abused, I firmly believe it leads som to the commission of crimes they abhor. I have been con sulted by at least 10 women of high or low degree at the c of life, who bitterly lamented their frequent temptation tc commit suicide or murder. Judges, as enlightened as mer ciful, have admitted the doctrine of uncontrollable impuls in cases of puerperal insanity. If they admit that parturition determines uncontrollable impulses, they must also allow the possible occurrence of the same impulse at all the critical periods of woman's life, during puberty, pregnancy, lactation, the m. periods, and cessation. It is notorious, that the best constituted female mind is susceptible of being totally un hinged by the first impressions of the reproductive apparatu on the nervous system; by the irregular performance of the m function; by connexion, parturition, and lactation; by some diseases of the ovaries and womb; and, lastly, by the shock

felt on the withdrawal of that ovarian stimulus to which it had been accustomed for 32 years. Such being the case, what is to be the fate of women, who, at the c. of life, unfortunately yield to some ungovernable impulse? Judges will be consistent, and as they shrink from inflicting punishment on mothers who murder their children during a fit of puerperal mania, and as on two occasions* they have permitted juries to return a verdict of "not guilty" for the murder of infants by young women who had habitually suffered from disordered menstruation, they would, I suppose, deal in a similar spirit with crime committed by women at the c. of life, if it could be proved by medical testimony that this period has been a source of mental trouble to one so unfortunate as to steal, to murder, or to commit other crimes. I lay some stress on this subject, because, very lately, when a lady was brought up for stealing some pocket-handkerchiefs, and the mental infirmities determined by the c. of life were pleaded in extenuation of the offence, the jury were divided. The difficulty of dealing with such cases is, that a patient cannot accept the benefits of a humane interpretation of the law, without abiding by the means wisely devised for the prevention of crime by the insane,—seclusion amongst criminal lunatics. Now seclusion may be useful in some cases, but is objectionable, until it has been proved that judicious treatment cannot remove a form of temporary insanity, as yet shallowly rooted in the system. Dr. Reid's† reflections on mental derangement apply forcibly to that occurring at the c. of life. "Lord Chesterfield speaks in one of his humorous essays, of a lady whose reputation was not *lost* but only *mis-*

* Regina *v.* Brixey, Central Criminal Court, June, 1845. The murder of an infant by this woman was proved; but she was acquitted on the plea of her being subject to disordered menstruation.

Amelia G. Snoswell was tried at Maidstone, March 20, 1855, for the same crime, and was acquitted on the same plea.

† Reid's "Essays on Insanity," p. 204.

laid. In like manner, instead of saying a man has lost senses, we should, in many instances, more correctly say, they were mislaid. Derangement is not to be confour with destruction ; we must not mistake a cloud for nigh fancy, because the sun of reason is obscured, that it will n again enliven or illuminate with its beams. There is grc to apprehend that fugitive folly is too often converted in fixed and settled frenzy, a transient guest into an irremov tenant of the mind, an occasional aberration of intellect a confirmed habit of dereliction, by a premature adoptio measures, sometimes necessary, but only so in extreme ca

I shall briefly notice the most frequent of the ungovern impulses occurring at the c. of life.

TEMPER, OR UNCONTROLLABLE PEEVISHNESS.—As at pube so at the c. of life, temper is perhaps the most freq of its instinctive impulses. The patient often says, "F mild and kindly disposed, I have become irascible and chievous ;" or, "I have suddenly become so mischievous, I am quite afraid of myself." The character of a charn lady, whom I have been so fortunate as to cure, was thus a time, completely altered. The m. flow came at 13, and at 47. During the dodging-time, uterine prolapsus was trou some, and required a pessary ; at cessation, there was ute irritation, incontinency of urine, distressing flushes and spirations. She was low-spirited, melancholy, snapp quarrelsome ; so uneven-tempered that her servants would stop long with her ; and so suspicious, that a common-p observation made by her husband, servants, or friends, interpreted as a conspiracy against her. This condition, lasting more or less for 2 years, yielded gradually to my u treatment, and there has been a surprising amendment du the last year. Both at puberty and at cessation this became suddenly very stout.

THE IMPULSE FOR SPIRITS—OINOMANIA.—B. de Boisn

has several times seen, in temperate women, a craving f spirits only at the m. epochs, which subsided with the flo and the same desire has been noticed in pregnant and pue peral patients. Esquirol and H. Roger Collard have eac met with women, in good circumstances, who all through li had been temperate, but at the change were suddenly seize with an irresistible desire for brandy, which again becam insupportable to them when the critical period was passe This impulse is akin to the well-known longings of pregnanc and those who yield to it know they are doing wrong, strugg against it, but are overcome. It is easy to understand ho such impulses should be rife at all the periods when th ganglionic nervous system is in a state of perturbation, an when anomalous sensations at the epigastric region indica morbid action in the ganglionic centre; they should, therefor be considered less as despicable failings than as complain admitting of being cured by proper treatment.

IMPULSE TO STEAL.—Drs. Taylor and Marc have know patients who, previous to puberty or to disordered menstru tion, were conscientious respecters of the rights of propert but who, though in affluence, would steal, at all risks, the critical periods of life. Dr. Marc mentions a ric lady who, during pregnancy, could not resist the tempt tion of stealing a chicken from a cook-shop. I have alread alluded to a case of this description occurring at the c. of lif and I believe it to happen oftener than is supposed—thoug while yielding to an ungovernable impulse, the sense of actin wrongly is ever present to the mind.

IMPULSE TO MURDER.—This irrepressible impulse has bee admitted in English Law Courts, whether it occurs durin disordered menstruation, pregnancy, or puerperal mania. cannot cite any case where this impulse led to lamentab consequences at the c. of life, but some of my patients this period were constantly troubled with the temptation

kill their grandchildren, and they feared to dine w
because of the knives. Those who yield to this
generally know they do wrong.

IMPULSE TO SELF-MURDER.—Hippocrates relates t
murder was epidemical among the young women of
It has occurred during m. irregularities, and B. de I
has observed it at puberty and at the c. of life. I
extensive statistical researches respecting suicide in F
appears that for one woman three men commit suici
with respect to the age at which this crime is most
he found that, out of 5960 suicides committed by wom
whole of France, the greatest number, 1111, took pl
40 to 50 ; 1026 occurred from 50 to 60, and 992 fr
30. It appears, however, that the capitals of some
are exceptions to the rule, for the same observer fo
out of 1380 suicides committed by women in P
largest number, 343, occurred from 20 to 30, and
40 to 50. Capitals excepted, wherein the battle of l
with fearful fury, it is safe to conclude that women
greatest propensity to self-murder between 40 and 5
is confirmed by Mathieu, a French mathematicia
Bureau des Longitudes. Many patients have told
inexpressible anguish, that they feel "so strange in t
so lost, so troubled with sensations of impending hor
they must commit suicide to prevent their going mad.
who are so overcome as to attempt self-murder,
know the enormity of the crime.

DEMONOMANIA.—When the belief in Satanic influ
a strong hold on the popular mind, lunatics often
themselves possessed by the devil—but now they
afraid of him than of the policeman. The only cas
monomania that I have seen, occurred to a lady
of life. She attributed the distressing symptoms o
disease to the devil having taken up his abode in h
and the delusion vanished when her health was

Dr. J. Conolly relates a similar case in his Croonian lectures; the patient was also at the turn of life, and on analysing Esquirol's remarkable article on demonomania, I am struck by the fact, that all his cases occurred at this epoch. One patient, aged 46, thought the devil had placed a cord from the pubis to the sternum; another, aged 49, had been troubled by cerebral symptoms ever since cessation, at 40, and thought the devil lodged in her womb. A third, aged 48, declared that he had taken up his abode in each hip-bone. A fourth, aged 57, from nervous had become insane at 52, when cessation occurred, and she claimed the devil as the father of her children. A fifth, aged 51, thought she had signed a contract with the devil—an illusion which originated in puerperal mania.

Amongst less frequent propensities, I may mention, that I have known women, previously economically inclined, become reckless in their expenditure, and given to extravagance, at the c. of life; while others, from generous, become penurious, or avaricious, in the midst of plenty, and their talk was about the workhouse, and dying without bread. A lady, who suffered much from melancholy fits at this period, twice had both her ponies shot, because one of them was taken ill; and a Dispensary patient had a tactile delusion that she was covered with lice, which I could never detect; and, notwithstanding copious ablutions and sulphureous baths, she constantly returned with the same pitiful story.

After recounting the facts which prove that there are morbid affections of the ganglionic centre, I sought to understand their import before indicating their treatment; and now that the facts indicating the various forms of cerebral disturbance induced by the c. of life have been related, I shall call attention to their probable mode of production, before stating their best means of cure. Those who only want facts, and eschew theory, may pass over what follows, until their eye meets the name of some familiar drug; but they should remember, that if practising in the time of Stoll, they would have sought

to relieve the cerebral affections I have described by vomiti
if during that of Mauriceau, by repeated and copi
bleedings—in other words, as their practice must be swa
by theory, they had better choose the best.

How can disease, or the morbid performance of the fu
tions of the reproductive apparatus, act on the brain? Th
are but two channels of communication between the rep
ductive apparatus and the brain—the circulating and
nervous system; that is to say, for the reproductive appara
to disorder the brain, something morbid must extend fr
the reproductive apparatus to the brain by the blood-vessel
by the nerves. It will not be difficult to show that
cerebral phenomena I have described do not depend
cerebral plethora, for, taking each phenomenon in succession
will be found that intense nervousness exists more frequen
in weak and anæmic than in plethoric patients. Leaving
of the question those in whom headache is caused by bili
derangement, it coincides much more frequently with a d
ciency in the amount of blood than in the opposite conditi
and often exists without any indication of congestion
the blood-vessels in the head. The same holds good w
regard to hysteria and hysterical fits; doubtless there are son
times fulness of the pulse and cerebral congestion, but
many cases the pulse continues weak, and the blood-vessel
the head exhibit no signs of over-distension. The sympto
described as pseudo-narcotism have many points of similitu
with those of plethora and cerebral congestion, which w
often and even now are sometimes so interpreted. S
symptoms, whether occurring in chlorosis or pregnancy, h
been often treated by bleeding. The fact of the sympto
of pseudo-narcotism being often stringent when the pulse
weakest, shows that it does not depend upon plethora. It
very seldom caused by biliary derangement, and its be
unattended by paralysis, or other signs of cerebral dise
implies that it is not caused by structural lesions of the br

It will be obvious that the same observations apply to epilepsy and to insanity. Doubtless, delirium and convulsions are often the immediate results of flooding; and when the cerebral symptoms I have described occur with chlorosis or profuse menstruation, they may be explained in the same way as the nervous accidents after flooding or copious bleeding—the brain being stimulated by imperfect blood. Very frequently, however, hysteria, pseudo-narcotism, &c., are observed when the tissues present every appearance of health, and when the amount of fluids in circulation seem in exact proportion to the wants of the system. The nervous phenomena cannot therefore be explained by anæmia. Drs. Todd and Cormack have revived the old opinion, which attributes hysterical delirium and convulsions to a toxæmic effect of the blood by the retention of something that ought to have been eliminated by the m. flow; but as hysterical symptoms are observed before first menstruation, they cannot be attributed to a poisoning of the blood. In this respect my observations are confirmed by Landouzy, who says, that he has observed symptoms indicating the influence of the generative organs upon the nervous system long before first menstruation, and even before little girls had any idea of sex; and I have met with well-marked cases of pseudo-narcotism in girls of 8 or 9 years of age, though first menstruation was delayed to 14 or 15.

If the reproductive apparatus does not act on the brain by the instrumentality of the circulating organs and their liquid contents, it must do so by means of the nerves. The genital apparatus is richly endowed with ganglionic nerves, and I have shown how frequently evident signs of disturbance in the ganglionic centres coincided with headache, nervousness, hysteria, and epilepsy. Thus, through the instrumentality of the nervous system, the brain receives the too strong stimulus of the ovarian nisus. The influence of the generative apparatus in the production of nervousness is distinctly perceivable in many of the lower animals. In the beginning of spring,

oscillations of medical doctrines, the time will never return f
headache, pseudo-narcotism, and some forms of hysteria to
treated by repeated and copious bleedings. As, however, the i
fluence of plethora as an additional cause of cerebral affectio
is not to be underrated, I do not suppose I shall be taxed wi
contradiction, if, while repudiating large bleedings, I seek
impress the conviction of the importance of small emissio
of blood at the c. of life. Mild purgatives, either the sali
or vegetable extracts, with calomel or blue pill, are often
advantageous in the cerebral affections of cessation as in oth
ailments, even when they are not positively indicated by t
furred tongue and the deranged intestinal secretions. T
use of antacids, cooling salts, and diuretics, as already e
plained, are useful adjuncts. Warm baths are very useful
relieve the extreme hyperæsthesia of the nervous syste
severe pseudo-narcotism, and all those conditions which ver
on insanity. The good effect of prolonged baths has be
long shown by Pomme, and Recamier revived a practice whi
is now generally followed in French lunatic asyluma.

Emetics are heroic remedies in a host of nervous affectio
in long-continued globus hystericus, in spasm of the œ
phagus, in nervous aphonia, in hysterical fixed pains, or
paralysis. They may be fearlessly given, unless debility
intense; and as they frequently cure without the removal
bile, they probably act by suddenly breaking in upon a morb
disposition of the cerebral and ganglionic nervous forces, a
promote their healthy equilibrium.

Sedative medications are, however, the chief remedies; a
what has been already said on this subject should be re
as a preface to the suggestions about to be made. Faithf
to the plan of applying the sedative to the suffering surfa
I seek to relieve the distressing headaches of the c. of life, a
many of its more distressing affections, by applications to t
head. In all mild cases of headache, pseudo-narcotism,
hystericism, I recommend the patient to sponge the head

over, once or twice a day, with cold vinegar and water, and after half drying the hair, to rub in, for 5 minutes, sweet oil, or any pomatum she may prefer. If these refrigerant measures do not relieve, hot flannels, sponges, and hot irons to the temporal regions, can be tried with due caution. When the symptoms indicate a tendency to insanity, I have the head sponged with water, holding in solution 2 to 4 oz. of camphorated spirits of wine to the pint, with the addition of a little eau de Cologne or lavender water. Camphorated vinegar and water, or water in which camphor has stood, or the comp. camphorated liniment well diluted, are excellent remedies. This last has been sold as "Ward's essence for the headache;" but a still better preparation is Raspail's sedative lotion, the formula of which will be found at page 106. This lotion may be used with a small sponge, or a pad of soft linen may be soaked in it, applied to the painful part of the head, and renewed as often as may be required. It reddens the scalp, causes burning sensations, and sometimes cutaneous eruptions; its action can be lessened by diluting it with water, but in severe cerebral affections, a handkerchief should be tied round the forehead to prevent the liquid running into the eyes, while copious spongings are made to the head of the reclining patient. Cold cream should afterwards be rubbed into the scalp, or cold cream with 1 drachm to the oz. of camphor, and 10 drops of the essential oil of bitter almonds. In pseudo-narcotism amounting to stupor, I have, in addition to other means, rubbed into the scalp eau de Cologne with as much camphor as it would dissolve. After rubbing it in for a few minutes the patient has come to herself. In a case in which these attacks of stupor frequently followed the epigastric pain, this was my only treatment during the attack. On recovering her senses, the patient felt as if her brain were "benumbed," and then succeeded a sensation of internal pricking, like "pins and needles." When this was complained of, I wrapped the head in a turban of flannel, and left the

OTORRHŒA.—I have noticed this complaint to come periodically with the m. flow, and the fact has not escaped accurate observation of Mr. Harvey. M. S., aged 52, fered much from otorrhœa for two years previous to first m. flow, very little from it while menstruation contin regular, but it returned with renewed pertinacity 13 mon before cessation took place.

SUMMARY.

In the course of this work my object has been to establish by facts and logical inference,

1. That the period of life comprised between the 40th and 50th years, commonly called the change of life, is eminently critical; that while in most women the critical phenomena with which this epoch abounds are instrumental in curing the complaints and strengthening the constitution, there are a certain number of women in whom these critical phenomena give rise to numerous, and sometimes to fatal diseases.

2. That a more accurate physiology of the change of life can alone explain its pathology. That the date of cessation; its diagnosis from some of the affections to which women are liable at the decline of life; the various compensating agencies by which health is then maintained in the absence of a thirty years' habitual sanguineous flow, are points of deep interest, and the last explains how nature remodels the female frame, so as to endow it with greater longevity, and with a comparatively greater immunity from disease.

3. That instead of adopting the vague or hazardous notions generally put forth respecting diseases of the change of life, it is better to seek a knowledge of the real morbid liabilities of this epoch, from the per centage of various diseases, deduced from a large number of well-tabulated cases.

4. That the natural history of the change of life can alone indicate the best modes of treatment for the complaints incidental to this period, and that, notwithstanding the interference of fashion with medical practice, it is still safe and

desirable to imitate the critical efforts of nature at this cri by bleeding, by giving purgatives and sudorifics.

5. That for the preservation of the health of women at t change of life, and for the possibility of deriving full ben from the beautifully adapted critical phenomena then p gressing, it is necessary that women should adhere to judiciously laid down code of hygiene.

6. That the first part of the period under consideratio one of turbulent activity for the reproductive organs, giv rise to numerous complaints, comparatively few of wh come under medical treatment, though many are patien borne, until, by their reaction on the nervous system, t help to produce many forms of nervous disorder.

7. That the digestive organs, particularly the bili apparatus, are very frequently affected at this period.

8. That the affections of the skin, noticed at the change life, are rather tedious than severe.

9. That well-localized nervous affections sometimes oc at this critical epoch.

10. That there are ganglionic nervous affections, wh should be carefully distinguished from the cerebral and spinal nervous affections, with which they are now confound because they often coincide and alternate with them; t these ganglionic nervous affections most frequently occu women, at all the critical epochs of the reproductive functi and are very general at the change of life.

11. That there are several well-determined modes of cere spinal disturbance to which the term hysteria is indiscri nately applied, and that, unless clearly defined, that term bar to the progress of mental pathology, by lending to ignora a scientific cloak. That cerebral affections are so commo the change of life, that few, if any, women escape suffe from the milder forms of cerebro-spinal disturbance, and t these, if neglected, sometimes merge into the many varietie insanity, the worst cases being, however, peculiarly amen

to treatment, of which the local application of sedatives is an essential part.

12. That women, at the change of life, are frequently afflicted with cancer, gout, and rheumatism.

I cannot conclude without giving expression to the hope, that this accurate study of an important period of life may diffuse a better appreciation of its beneficial action, that it may lead to the prevention of a large portion of the sufferings often attending it, and to more rational and systematic modes of treatment. To this hope I cling, otherwise fruitless will have been my labour for the last seven years.

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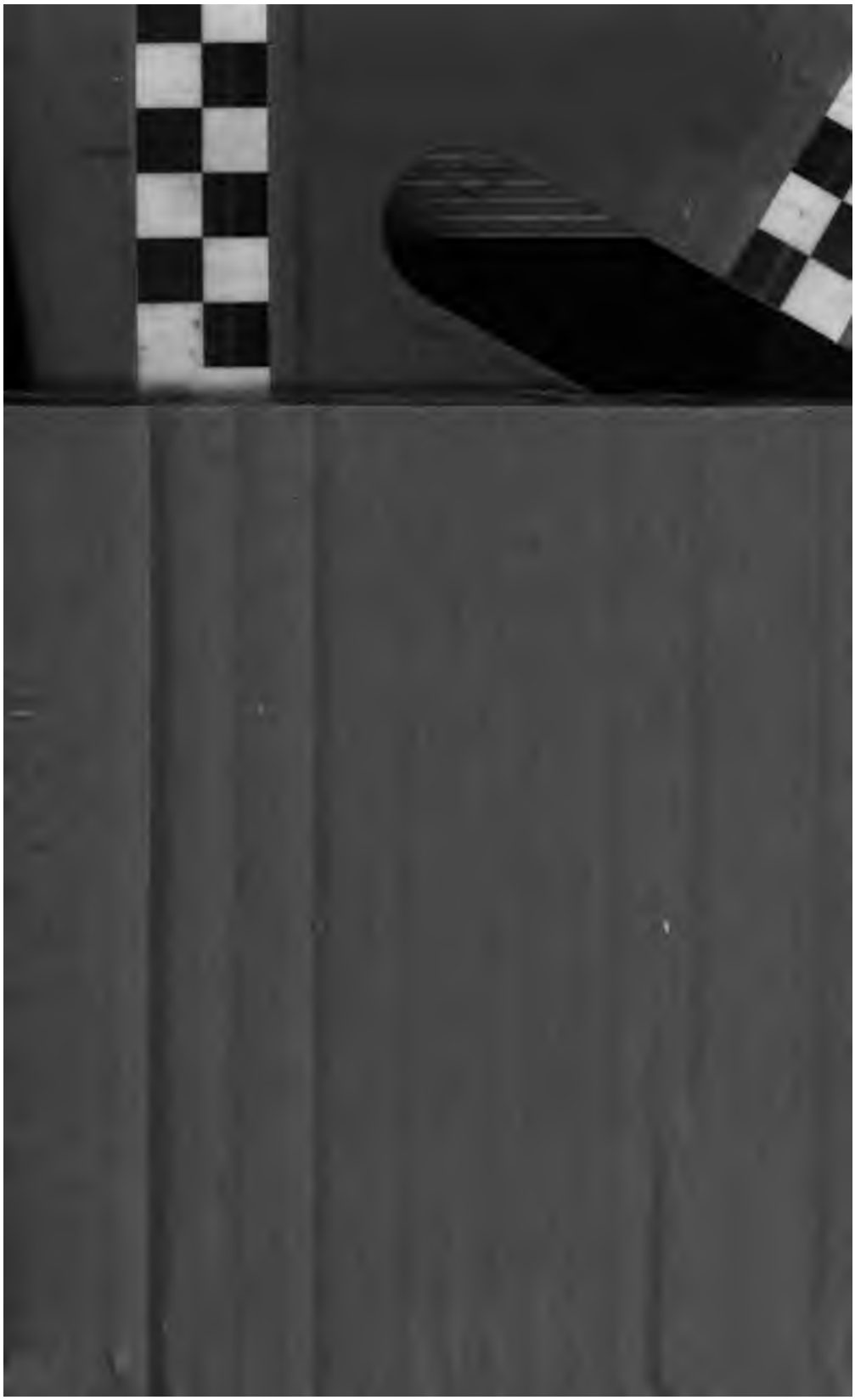
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